16/991

THE PORTS OF MIAMI, PORT EVERGLADES, PALM BEACH, AND PORT CANAVERAL, FLORIDA

PORT SERIES NO. 16
REVISED 1991

U. S. ARMY
CORPS OF ENGINEERS

NDC 91-P-3

D 103.8:

READEX FICHE best copy available

U. S. ARMY
CORPS OF ENGINEERS

PORT SERIES NO. 16
REVISED 1991

PORTS OF MIAMI, PORT EVERGLADES, PALM BEACH, AND PORT CANAVERAL, FLORIDA

PREPARED BY
THE WATER RESOURCES SUPPORT CENTER

UNITED STATES GOVERNMENT PRINTING OFFICE
WASHINGTON, DC: 1991

FOR SALE BY WATER RESOURCES SUPPORT CENTER,
CASEY BUILDING, FORT BELVOIR, VIRGINIA 22060-5586
Price: $8.50

CONTENTS

PORT AND HARBOR CONDITIONS:

	MIAMI	PORT EVERGLADES	PALM BEACH	PORT CANAVERAL
Location and General Description	1	75	101	119
Harbor and Channel Improvement by the United States	2	75	101	119
Harbor and Channel Improvements by Local Interest	3	76	-	-
Tides and Currents	3	77	102	-
Anchorages	5	77	102	121
Bridges	5	77	102	121
Weather Conditions	5	77	102	121

PORT AND HARBOR FACILITIES:

	MIAMI	PORT EVERGLADES	PALM BEACH	PORT CANAVERAL
Piers, Wharves, and Docks	19	83	107	129
Oil Handling and Bunkering	56	93	114	141
Dry Bulk Handling	-	93	114	141
Liquid Bulk Commodities	-	-	114	-
Warehouses	56	93	114	142
Open Storage	64	98	115	142
Hoisting Equipment - Ashore and Afloat	64	98	115	142
Marine Repair Plants and Drydocking Equipment	64	98	118	142
Floating Equipment	65	98	118	147
Rail Lines	65	99	118	147

ILLUSTRATIONS:

	MIAMI	PORT EVERGLADES	PALM BEACH	PORT CANAVERAL
Views of Waterfront Facilities	8	79	104	123

LIST OF TABLES:

	MIAMI	PORT EVERGLADES	PALM BEACH	PORT CANAVERAL
Controlling Depths	4	76	102	120
Meteorological Data	6	-	103	122
List of Bridges	7	-	-	121
Purpose for Which Used	20	84	108	130
Summary of General Cargo Handling	24	85	107	129
Piers, Wharves, and Docks	25	86	109	131
Oil Handling and Bunkering	56	94	-	141
Summary of Dry Bulk Handling	-	93	114	141
Summary of Dry and Cold Storage Warehouses	57	-	-	-
Storage Warehouses	58	96	116	143
Marine Repair Plants and Drydocking Equipment	66	-	-	145
Floating Equipment	74	99	-	147
INDEX OF PIERS, WHARVES, AND DOCKS	148	149	149	150

PORT SERIES REPORTS

NO.		DATE OF PUBLICATION	SALES PRICE
1	Portland and Searsport, ME, and Portsmouth, NH	1985	$7.00
3	Boston, MA	1983	7.50
4	Ports of Southern New England (Providence, RI; Fall River, MA; and New London, New Haven, and Bridgeport, CT)	1983	9.00
5	New York, NY, and NJ, and Ports on Long Island, NY	1988	15.50
6	Albany and Ports on Hudson River, NY	1984	6.50
8	Philadelphia, PA; Camden, NJ; Wilmington, DE; and Ports on Delaware River	1984	10.00
10	Baltimore, MD	1991*	–
11	Ports of Hampton Roads, VA (Norfolk, Newport News, Chesapeake, Portsmouth, and Hampton)	1991*	–
12	Wilmington and Morehead City, NC	1987	7.00
13	Charleston and Georgetown, SC	1987	7.00
14	Savannah and Brunswick, GA	1990	7.50
15	Jacksonville and Fernandina Beach, FL	1986	7.00
16	Miami, Port Everglades, Palm Beach, and Port Canaveral, FL	1991	8.50
17	Tampa and Port Manatee, FL	1984	7.00
18	Mobile, AL	1986	6.50
19	Panama City and Pensacola, FL; Pascagoula and Gulfport, MS; and Ports on the Apalachicola, Chattahoochee, and Flint Rivers	1986	9.50
20	New Orleans, LA	1990	10.00
20A	Mississippi River Ports Above and Below New Orleans, LA	1991*	–
21	Baton Rouge and Lake Charles, LA	1990	11.00
22	Port Arthur, Beaumont, and Orange, TX	1988	8.00
23	Galveston and Texas City, TX	1985	7.00
24	Houston, TX	1989	10.00
25	Corpus Christi, TX	1983	7.50
26	Freeport, Point Comfort/Port Lavaca, Brownsville, and Ports along Gulf Intracoastal Waterway, Texas	1991	10.00
27	San Diego, CA	1987	6.50
28	Los Angeles, Long Beach, and Port Hueneme, CA	1985	8.50
30	San Francisco, Redwood City, and Humboldt Bay, CA	1991	8.00
31	Oakland-Alameda, Richmond, and Ports on Carquinez Strait, CA	1982	8.00
32	Sacramento, Stockton, Pittsburg, and Antioch, CA	1986	7.00
33	Coos Bay, OR and Ports on Columbia-Snake River System (Astoria, The Dalles, Boardman, and Umatilla, OR; Longview, Kalama, Vancouver, Pasco/Kennewick, Wilma, and Clarkston, WA; and Lewiston, ID)	1986	11.00
34	Portland, OR	1985	7.00
35	Tacoma, Grays Harbor, and Olympia, WA	1983	7.00
36	Seattle, WA	1983	7.50
37	Port Angeles, Port Townsend, Everett, Anacortes, and Bellingham, WA	1987	7.50
38	Ports of Alaska (Anchorage, Kenai, Valdez, Kodiak, Unalaska, Kotzebue, Nome, Bethel, Ketchikan, Wrangell, Petersburg, Sitka, Juneau, etc.)	1984	10.50
41	Buffalo, Rochester, Oswego, and Ogdensburg, NY	1990	6.50
42	U.S. Ports on Lake Erie (Erie, PA; and Conneaut, Ashtabula, Fairport Harbor, Lorain, Huron, and Sandusky, OH)	1990	8.50
43	Cleveland, OH	1989	7.00
44	Toledo, OH	1989	6.00
45	Detroit and Ports on the Saginaw River, MI	1984	8.00
46	Chicago, IL	1985	8.50
47	Milwaukee, WI	1984	6.00
48	Ports on Lake Michigan (Green Bay and Manitowoc, WI; Escanaba, Ludington, Muskegon, MI; Indiana Harbor and Burns Waterway Harbor, IN)	1981	7.50
49	Duluth, MN; Superior, WI; Taconite Harbor, Silver Bay, and Two Harbors, MN; and Ashland, WI.	1987	6.50
50	Ports of Hawaii (Honolulu, Port Allen, Nawiliwili, Kahului, Kaunakakai, Kawaihae, and Hilo).	1987	7.00
60	Pittsburgh, PA, and Ports on the Ohio, Monongahela, and Allegheny Rivers, PA...(NEW EDITION)	1982	11.00
61	Huntington, WV, Ports on Ohio River Miles 40-317, and Kanawha River, WV........(NEW EDITION)	1983	10.00
62	Cincinnati, OH, and Ports on Ohio River Miles 317-560........(NEW EDITION)	1983	8.50
63	Louisville, KY, Ports on Ohio River Miles 560-980, and Cumberland and Green Rivers........(NEW EDITION)	1984	9.00
64	Ports on Tennessee River, Tennessee-Tombigbee and Black Warrior-Tombigbee Waterways, and Alabama River........(NEW EDITION)	1986	11.00
65	Illinois Waterway, IL........(NEW EDITION)	1984	7.50
68	Ports on the Missouri, Arkansas, Verdigris, White, and Ouachita Rivers........(NEW EDITION)	1987	10.00
69	Minneapolis-St. Paul, MN, and Ports on Upper Mississippi River Miles 300-860 AOR........(NEW EDITION)	1985	8.50
70	St. Louis, MO, and Ports on Upper Mississippi River Miles 0-300 AOR........(NEW EDITION)	1982	8.50
71	Memphis, TN; Helena, AR; and Ports on Lower Mississippi River Miles 620-954 AHP........(NEW EDITION)	1983	9.00
72	Natchez, Vicksburg, and Greenville, MS, and Ports on Lower Mississippi River Miles 255-620 AHP........(NEW EDITION)	1982	7.50

*** Tentative date of publication.**

Port Series reports may be ordered from the Water Resources Support Center (CEWRC-NDC-P), Casey Building, Fort Belvoir, VA 22060-5586. Check or money order (in U.S. funds) should be made payable to the Superintendent of Documents. Payment is required in advance. Telephone orders are accepted from holders of Superintendent of Documents accounts or interbank credit cards (Visa and Master Card only) - telephone number 703/355-2495, telefax number 703/355-3171. Prices are subject to change without notice.

INTRODUCTION

This report on the Ports of Miami, Port Everglades, Palm Beach, and Port Canaveral, Florida, is published as No. 16 of the Port Series. It supersedes a similar report revised in 1982.

The reports in the Port Series cover the principal United States coastal, Great Lakes, and inland ports, and are compiled and published by the Port Facilities Branch, Water Resources Support Center, U.S. Army Corps of Engineers, under authority of Section 7 of the River and Harbor Act of July 19, 1918, Section 500 of the Transportation Act of February 28, 1920, and Section 8 of the Merchant Marine Act of 1920.

Acknowledgment is made of the valuable assistance given by the Commander, U. S. Army Engineer District, Jacksonville, Florida; facility operators; port organizations; shipping and transportation companies; state and local officials; and other individuals in the compilation of data for this report.

Unless otherwise stated, the information contained in this report was current upon completion of field survey in March 1989. Additional revised data have been included through August 1990.

All data for this report was collected and processed by personnel of the Port Facilities Branch, Water Resources Support Center. We invite user comments to help us maintain an accurate and current port data file inasmuch as there is an average seven years interval between revisions. Please report any errors, additions, deletions, and changes directly to Water Resources Support Center, Port Facilities Branch, Casey Building, Fort Belvoir, Virginia 22060-5586, telephone number (703) 355-2495, telefax number (703) 355-3171.

METRIC CONVERSION TABLE

Section 3 of Public Law 94-163, the Metric Conversion Act of 1975, declares that the policy of the United States shall be to coordinate and plan the increasing use of the metric system in the United States.

As an initial step, in accordance with the Metric Conversion Act of 1975, this Metric Conversion Table is included in this Port Series Report.

MULTIPLY	BY	TO OBTAIN
Inches	2.54001	Centimeters
Feet	0.304801	Meters
Miles, statute	1.60935	Kilometers
Square Feet	0.0929034	Square meters
Acres	0.404687	Hectares
Pounds per square foot	4.88241	Kilograms square meter
Tons, short	0.907185	Metric tons
Tons, long	1.01605	Metric tons
Gallons	3.78543	Liters
Degrees, Fahrenheit	5/9 (F-32)	Degrees, Celsius
Barrels, oil	1.58988	Hectoliters
Bushels	0.0352391	Cubic meters

PORT OF MIAMI, FLORIDA

PORT AND HARBOR CONDITIONS

LOCATION AND GENERAL DESCRIPTION

The Port of Miami, Florida, is located at the northern part of Biscayne Bay and along the lower 5.5-mile reach of the Miami River. The river empties into the west side of the bay about one mile south of the turning basin at the inner end of the main channel. The Port is 324 nautical miles south of Jacksonville, 27 nautical miles south of Port Everglades, and 151 nautical miles northeast of Key West, Florida.

The city of Miami is on the west side of Biscayne Bay, and the city of Miami Beach is on a peninsula on the northeast side of the bay, opposite Miami. The two cities are connected by five causeways crossing the bay.

Biscayne Bay extends south to Card Sound, is about 38 miles long, 3 to 9 miles wide, and has average natural depths ranging from 6 to 9 feet at mean low water. The northern part of the bay is separated from the Atlantic Ocean by the Miami Beach peninsula and the southern part, by Fisher Island, Virginia Key, and Key Biscayne.

The deepwater entrance to the port is via a dredged channel extending from the ocean, through Government Cut, and across the bay to the turning basin at the west shore, south of the MacArthur Causeway. The channel entrance, known as Government Cut, lies between two stone jetties, one extending from the southern end of the Miami Beach peninsula, and the other from the northeasterly side of Fisher Island. The route of the Atlantic Intracoastal Waterway passes through the bay and turning basin in a north-south direction.

Waterfront facilities, for deep-draft vessels, are situated along the Miami Ship Channel on the north side of Dodge Island, and along the deep-draft channel dredged by the Metropolitan Dade County Seaport Department on the south sides of both Lummus and Dodge Islands. A causeway connects outer, triangular-shaped Lummus Island with rectangular-shaped Dodge Island, both of which are manmade. Dodge Island is connected to the mainland by a combination highway-railroad causeway extending from the foot of NE 6th Street.

Shallow draft vessels drawing 12 feet or less, call at waterfront facilities located along the Miami River and Miami Canal, from the mouth of the river to the dam located below NW 36th Street.

HARBOR AND CHANNEL IMPROVEMENTS BY THE UNITED STATES

The existing project, authorized by the River and Harbor Act of June 13, 1902 (House Document 662, 56th Congress, 1st session) and by subsequent acts of which the latest is dated August 13, 1968 (Senate Document 93, 90th Congress, 2d session), provides for the following work:

An entrance channel 38 feet deep and 500 feet wide from the ocean to the outer end of the north jetty, thence 36 feet deep and 400 feet wide through the entrance (Government Cut) and across Biscayne Bay to and including a turning basin at the (former) municipal terminals, 1,650 feet wide, and 1,700 feet long;

Two parallel rubblestone jetties at the entrance, 1,000 feet apart and 3,000 and 2,750 feet long;

A turning basin along the north side of Fisher Island, 36 feet deep and about 39 acres in extent;

A channel 15 feet deep and 200 feet wide from the mouth of the Miami River to the turning basin at the (former) municipal terminals;

A channel 8 feet deep and 200 feet wide from the mouth of the Miami River to the Atlantic Intracoastal Waterway, thence 8 feet deep and 100 feet wide to the entrance channel (Government Cut) ;

A channel at the mouth of Miami River, 15 feet deep by 250 feet wide at the outer end and tapering to 170 feet at Brickell Point in a distance of about 1,400 feet;

A channel in Miami River, 15 feet deep under flood conditions, 150 feet wide for 3 miles, thence 125 feet wide for 1.1 miles, and thence 90 feet wide for 1.4 miles; and

A channel 12 feet deep by 100 feet wide from Miami River to a harbor of refuge in Palmer Lake.

Total length of the project is about 15.3 miles, including about 6 miles of channel from the ocean to the (former) municipal terminals in Miami, 5.8 miles of channel in Miami River and its mouth, and 3.5 miles of connecting channels leading therefrom.

All depths refer to the plane of mean low water.

The project is complete except for the inactive portions.

HARBOR AND CHANNEL IMPROVEMENTS BY LOCAL INTERESTS

The conditions of local cooperation have been met including:

> Provision of all lands and rights-of-way; provision and maintenance of public terminal facilities; hold and save the United States free from damages; accomplishment of utility and other relocations and alterations as required; establishing regulations prohibiting discharge of pollutants into the waters of the channel and harbor by users thereof; contributing 8.2 percent of the construction cost of the 1968 modification, including engineering and design and supervision and administration costs; contributing one-third of the initial costs of deepening the channel from Miami River to the harbor of refuge in Palmer Lake; providing and maintaining suitable depths in harbor of refuge and constructing and maintaining adequate mooring facilities therein; and in time of storm having refuge open to all free of charge.

In addition, Metropolitan Dade County Seaport Department dredged a channel along the south side of Lummus and Dodge Islands, using the dredged material for enlargement of Lummus Island. The federal turning basin, north of Fisher Island, was enlarged and extended approximately 500 feet west, with a 500-foot channel extending west along Lummus Island, with a depth of 38 feet for approximately 3,200 feet, thence a depth of 29 feet for a distance of approximately 840 feet, thence a depth of 25 feet for a distance of approximately 2,600 feet where it widens to 1,000 feet in an irregularly shaped 1,500-foot long turning basin opposite the opening between Lummus and Dodge Islands. The channel continues northwesterly along Dodge Island for 3,400 feet, diminishing to 15 foot depth and 500 to 300 feet in width for an additional 1,200 feet. A southwesterly buoy-marked, undredged channel 200 feet wide with 10- to 8-foot depth connects with the Intracoastal Waterway.

The controlling depths at mean low water in the various sections of the harbor and dates of survey are shown in the tabulation on the following page.

TIDES AND CURRENTS

Mean tidal variation is 2.5 feet at the harbor entrance and 2 feet in the bay. Spring range is 3 feet at the entrance and 2.4 feet in the bay and extreme variation is about 4.5 feet at the entrance and 3 feet in Biscayne Bay. Strong easterly winds raise the water level about 1.5 feet at the entrance and one foot in the bay, while strong westerly winds lower the water level about one foot at the entrance and about 0.5 foot in the bay.

Tidal currents through the main ship channel have a velocity of 2 to 4 miles per hour. Cross-channel current variations in Government Cut are particularly difficult to negotiate because of variances between predicted and actual currents. Caution should be exercised when entering from sea during flood tide with northeasterly winds; a strong turning torque occurs when just inside the north jetty. A similar but less serious situation occurs when leaving the port during ebb tides. Horizontal current gradients occur in the turning basin at the northwest corner of Dodge Island which may make maneuvering difficult. Ships may encounter current anomalies at the mouth of the Miami River.

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOW WATER (MLW)

CHANNEL	QUARTER				DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTSIDE (FEET)	LEFT INSIDE (FEET)	RIGHT INSIDE (FEET)	RIGHT OUTSIDE (FEET)		LENGTH (NAUTICAL MILES)	WIDTH (FEET)	DEPTH MLW (FEET)
Outer Bar Cut	32.0	38.0	38.0	36.7	4/89	1.5	500	38
Widener Angle	38.0	38.0	38.0	38.0	12/88	0.55	0-600	38
Bar Cut	38.0	38.0	37.8	35.7	4/89	0.73	500	38
Government Cut	39.0	36.0	36.0	36.0	12/88	0.66	500-400	36
Main Channel	36.0	36.0	36.0	33.2	4/89	2.44	400	36
	DEPTH							
Turning Basin at Fisher Island	35.5				12/88	39 Acres		36
						(FEET)		
Turning Basin at (former) municipal terminals	36.0				12/88	1,700	1,650	36
Mouth of Miami River to Turning Basin at (former) municipal terminals	12.5				12/88	200	-	15
						(STATUTE MILES)		
Miami River; mouth to Tamiami Canal	14.0				10/86	4.2	250-90	15
Miami River; Tamiami Canal to dam below NW 36th Street Bridge	9.0				10/86	1.1	90	15

ANCHORAGES

There are no federally designated anchorage areas for deep-draft vessels in Miami harbor. In Biscayne Bay, good anchorage for recreational craft and other small vessels is found along the west side of Miami Beach from MacArthur Causeway northward to Bakers Haulover Inlet and southward along the Miami waterfront from the City Yacht Basin to the Dinner Key Marina. Large vessels awaiting pratique usually anchor outside the harbor; smaller vessels anchor in the channel north of Fisher Island.

Outside the harbor, off Miami Beach, anchorage grounds are available. The area is located to the eastward of a line bearing N. 12° E. through a point X, which is 1.5 nautical miles due east of the intersection of the Miami Beach shoreline with the north jetty; to the northward of a line bearing S. 78° E. and intersecting the 12° line at a point A, one-half nautical mile north of the said point X; and to southward of a line bearing S. 78° E. and intersecting the 12° line at a point B, 2.5 nautical miles north of the said point X. The northern and southern extremities of the 12° line are marked by spar buoys. The entire anchorage area lies north of the entrance channel to Miami Harbor.

BRIDGES

Within the harbor area, 10 bascule and 3 fixed bridges cross the lower 5.5 miles of Miami River and Canal and 7 causeways cross portions of Biscayne Bay, each with bridge spans crossing the Atlantic Intracoastal Waterway. No bridges cross the ship channel or turning basin in Miami Harbor. Details of the bridges are given in the table on page 7.

WEATHER CONDITIONS

The climate of Miami is essentially subtropical marine, featured by a long, warm summer, with abundant rainfall, followed by a mild, dry winter. The marine influence is evidenced by the low daily range of temperature and the rapid warming of cold air masses which pass to the east of the state. The Miami area is subject to winds from the east or southeast about half the time and, in several specific respects, has a climate whose features differ from those prevailing farther inland.

Miami Beach has a normal annual rainfall of about 46 inches, while the Weather Service Office at the airport, about 9 miles inland, has a normal of over 59 inches. The daily rainfall is somewhat different at the two locations, in that during the early morning hours more rainfall occurs at Miami Beach than at the airport, while during the afternoon the reverse is true. Temperatures of 90°F or higher occur at Miami Beach less than 15 days per year while at inland stations the occurrence averages greater than 60 days per year. Minimum temperature differences between inland locations and the Miami Beach station frequently amount to 15°F or more, especially in winter. Freezing temperatures occur occasionally in the farming districts southwest, west, and northwest of the city, but almost never occur near the ocean.

Tropical hurricanes occasionally affect the area, the months of greatest frequency being September and October. Destructive tornadoes are very rare, although funnel clouds occasionally touch the ground, and waterspouts are sighted quite often along the beaches during the summer months; however, significant damage is seldom reported.

The information below was compiled by the National Weather Service Station at the Miami International Airport and was furnished by the National Environmental Satellite Data and Information Service, National Oceanic and Atmospheric Administration.

METEOROLOGICAL DATA FOR PERIOD OF RECORD

TIME	NORMAL DAILY TEMPERATURE F°		NORMAL TOTAL PRECIPITATION (INCHES)	PREVAILING DIRECTION OF WINDS	HEAVY FOG* (DAYS)
	MAXIMUM	MINIMUM			
No. of years	45	45	45	30	39
January......	75.0	59.2	2.08	NNW	1.4
February.....	75.8	59.7	2.05	ESE	0.9
March........	79.3	64.1	1.89	SE	0.7
April........	82.4	68.2	3.07	ESE	0.6
May..........	85.1	71.9	6.53	ESE	0.3
June.........	87.3	74.6	9.15	SE	0.0
July.........	88.7	76.2	5.98	SE	0.1
August.......	89.2	76.5	7.02	SE	0.1
September....	87.8	75.7	8.07	ESE	0.1
October......	84.2	71.6	7.14	ENE	0.2
November.....	79.8	65.8	2.71	N	0.9
December.....	76.2	60.8	1.86	N	0.9
Year	82.6	68.7	57.55	ESE	6.2

* Visibility 1/4 mile or less.

LIST OF BRIDGES

MILES ABOVE MOUTH	LOCATION/NAME	TYPE	NAVIGATION OPENINGS (FEET)	
			CLEAR WIDTH NORMAL TO CHANNEL	CLEAR HEIGHT ABOVE MHW
	MIAMI RIVER AND CANAL			
0.1	SE 2d Avenue (U.S. Highway No. 1)	Bascule, double-leaf	94	20
0.4	Metrorail Rapid Transit	Fixed	140	75
0.5	SW 2d Avenue	Bascule, double-leaf	75	11
0.7	North-South Expressway (Interstate Highway No. 95)	Fixed, 3 parallel spans	75	75
0.9	SW 1st Street	Bascule, double-leaf	75	18
1.0	West Flagler Street	do.	75	35
1.5	NW 5th Street	do.	75	12
2.1	NW 12th Avenue	do.	94	17
2.3	East-West Expressway (State Highway No. 836)	Fixed	75	75
2.6	NW 17th Avenue	Bascule, double-leaf	75	17
3.2	NW 22d Avenue	do.	81	25
3.7	NW 27th Avenue	do.	75	18
5.3	CSX Rail Transport	Bascule, single-leaf	60	6
MILES SOUTH OF NORFOLK	ATLANTIC INTRACOASTAL WATERWAY			
1,081.4	Broad (125th Street) Causeway	Bascule, double-leaf	80	16
1,084.6	John F. Kennedy (79th Street) Causeway	do.	90	19
1,087.1	Julia Tuttle (36th Street) Causeway (U.S. Highway No. 195)	Fixed	90	56
1,088.6	Venetian Causeway	Bascule, double-leaf	60	8
1,088.8	MacArthur Causeway	do.	91	35
1,089.4	Port of Miami (Dodge Island) Causeway (Highway and Railroad)	do.	90	22
1,091.6	Rickenbacker Causeway	do.	79	23

ISLAND DEVELOPERS, LTD., FISHER ISLAND FERRY DOCK
(P.W.D. Ref. No. 2)

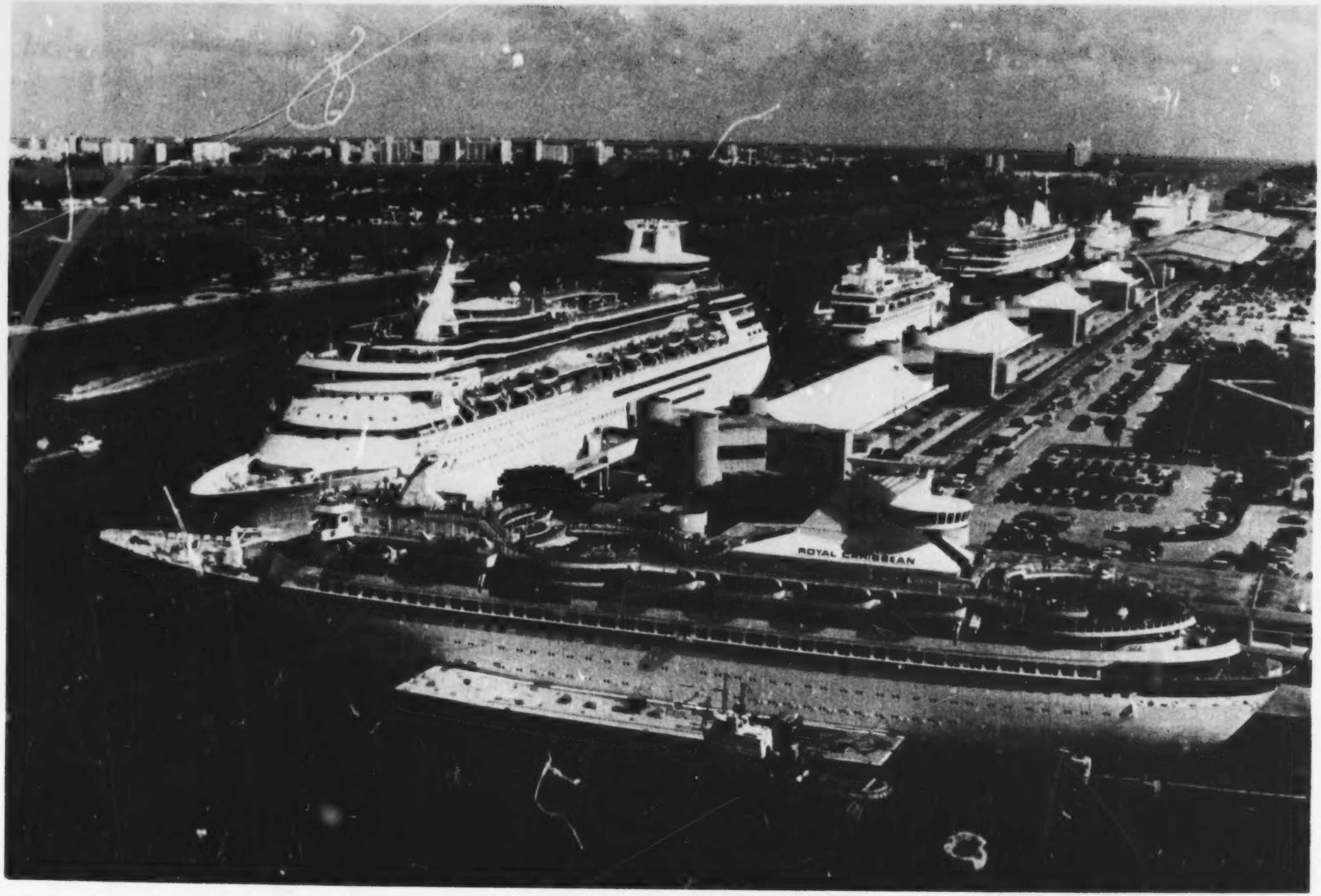
WEST SIDE OF SLIP AT COASTAL FUELS MARKETING,
FISHER ISLAND TERMINAL
(P.W.D. Ref. No. 3)

ISLAND DEVELOPERS, FISHER ISLAND BARGE SLIP
(P.W.D. Ref. No. 4)

U.S. COAST GUARD BASE, MIAMI BEACH
WEST SIDE MOORING WHARVES
(P.W.D. Ref. No. 5)

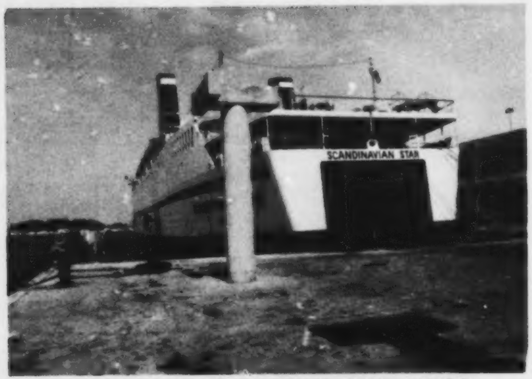
ISLAND TERMINAL CO.
(P.W.D. Ref. No. 6)

WATSON ISLAND, FUEL & FISHING SUPPLY WHARF
(P.W.D. Ref. No. 10)


ROYAL CARIBBEAN

GENERAL VIEW OF PORT OF MIAMI DODGE ISLAND NORTH WHARF
PASSENGER FACILITIES, LOOKING EAST
(P.W.D. Ref. Nos. 13-17)

MIAMI HERALD PUBLISHING CO., BARGE DOCK
USED FOR RECEIPT OF NEWSPRINT
(P.W.D. Ref. No. 12)



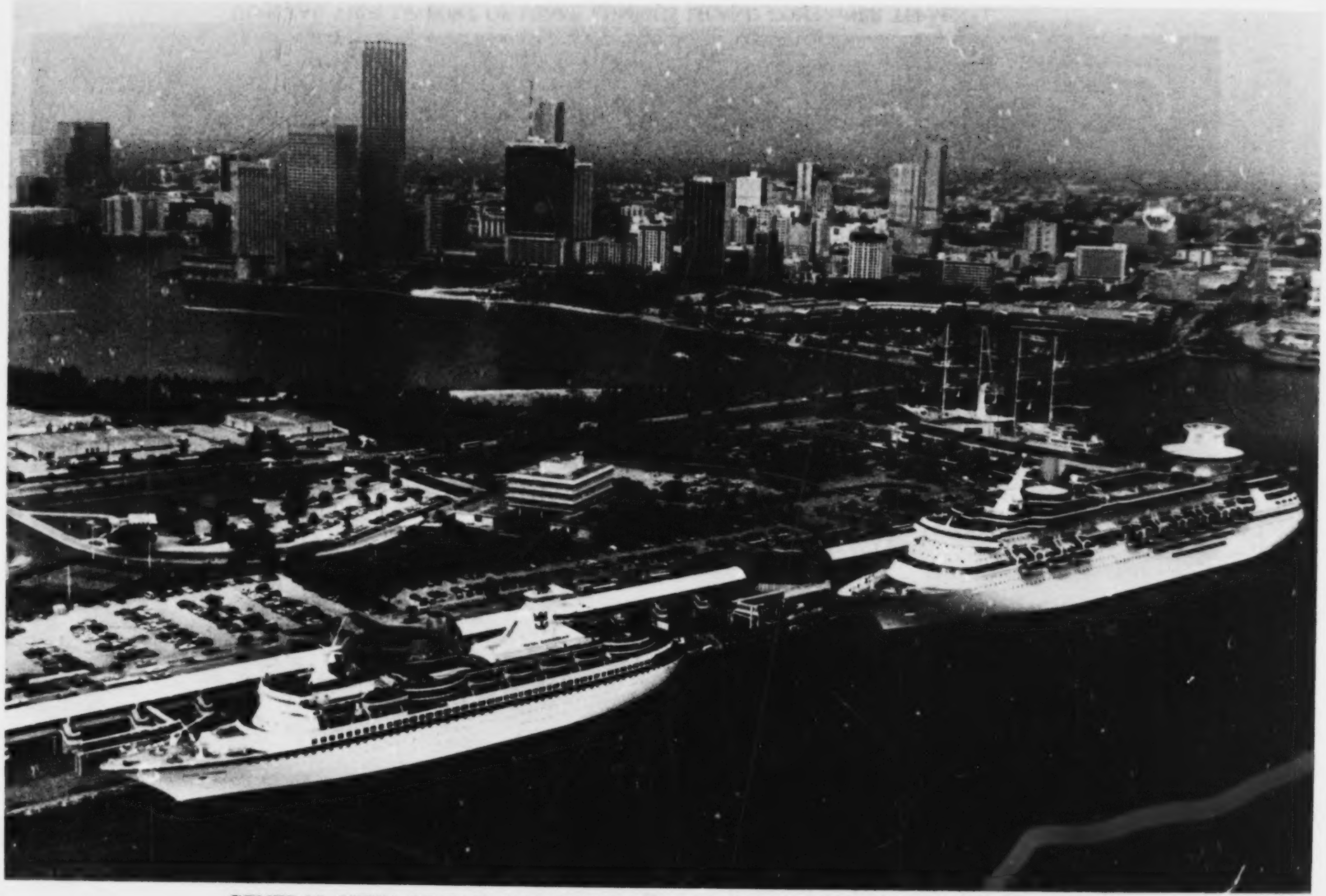
PORT OF MIAMI, DODGE ISLAND WEST WHARF,
BERTH NO. 6 - STERN LOADING SECTION
(P.W.D. Ref. No. 13)

CRUISE VESSELS MOORED AT PORT OF MIAMI,
DODGE ISLAND NORTH WHARF,
BAYS 1 THROUGH 20
(P.W.D. Ref. No. 14)

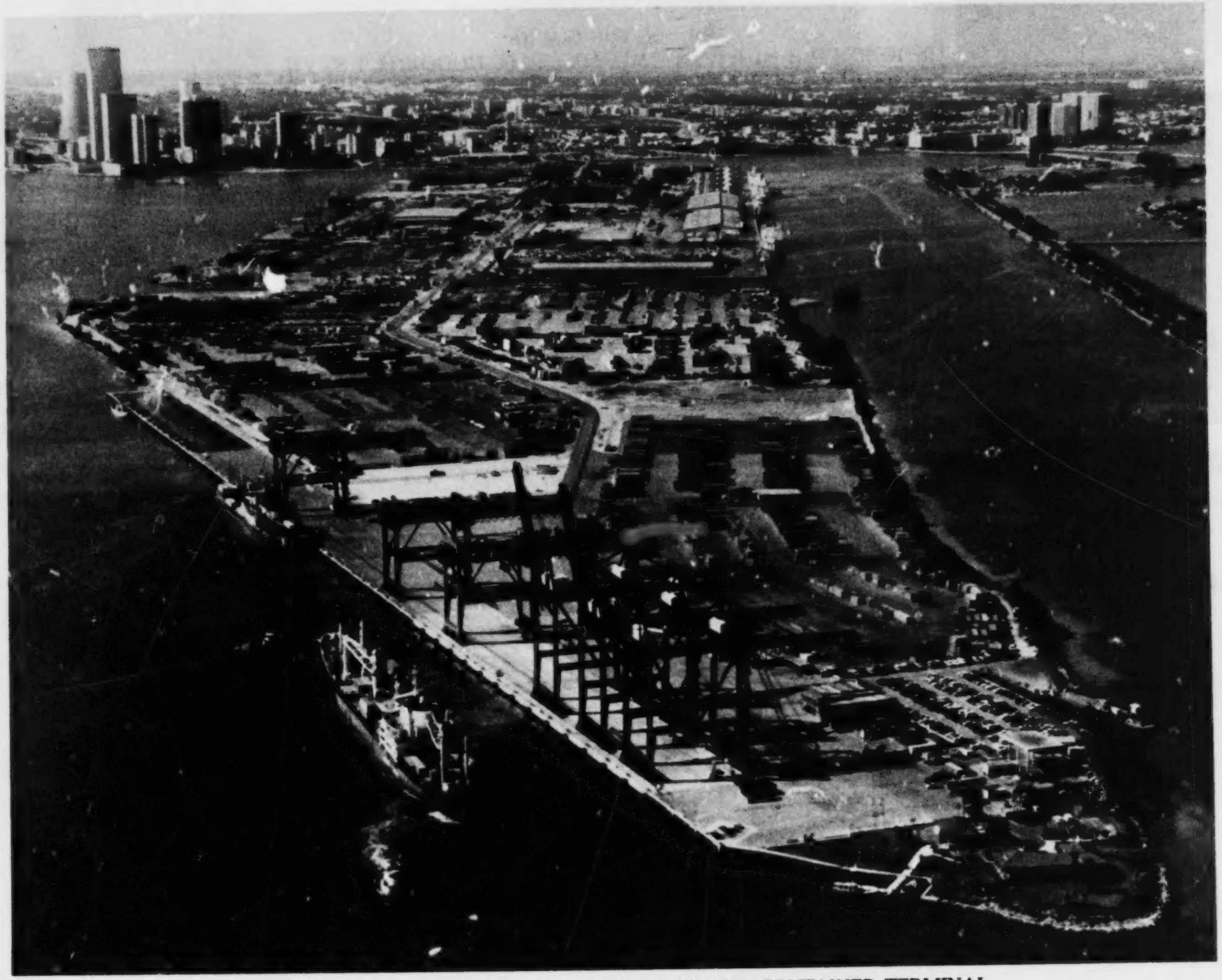
PORT OF MIAMI,
DODGE ISLAND NORTH WHARF,
BAYS 25 THROUGH 31
(P.W.D. Ref. No. 15)

PORT OF MIAMI,
DODGE ISLAND NORTH WHARF,
BAY 62 - STERN LOADING FACILITIES
(P.W.D. Ref. No. 17)

BISCAYNE BAY PILOTS ASSOCIATION WHARF
EAST END OF LUMMUS ISLAND
(P.W.D. Ref. No. 19)



GENERAL VIEW OF EAST PORTION PORT OF MIAMI PASSENGER FACILITIES
BAYS 1 THROUGH 30, DOWNTOWN MIAMI IN BACKGROUND
(P.W.D. Ref. No. 14)



GENERAL VIEW OF PORT OF MIAMI LUMMUS ISLAND CONTAINER TERMINAL

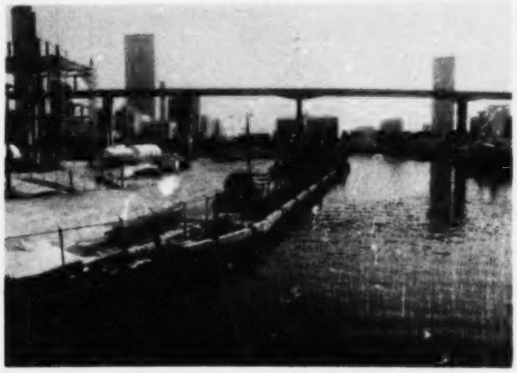
CONTAINER HANDLING VIA TWO 50-TON CAPACITY CRANES AT PORT OF MIAMI, LUMMUS ISLAND, CONTAINER WHARF (P.W.D. Ref. No. 20)

INNER END, PORT OF MIAMI, DODGE/LUMMUS ISLAND, SOUTH ROLL-ON, ROLL-OFF SLIP (P.W.D. Ref. No. 21)

UNLOADING BANANAS AT BANANA SUPPLY CO. WHARF (P.W.D. Ref. No. 23)

PORT OF MIAMI, DODGE ISLAND SOUTH WHARF, BAYS 93 THROUGH 97 (P.W.D. Ref. No. 25)

MISSING THE BOAT AT PORT OF MIAMI, DODGE ISLAND SOUTHWEST PASSENGER TERMINAL (P.W.D. Ref. No. 26)



FLORIDA POWER AND LIGHT CO., MIAMI RIVER WHARF (P.W.D. Ref. No. 30)

METROPOLITAN DADE COUNTY, MAINTENANCE WHARF
(P.W.D. Ref. No. 32)

EAST COAST FISHERIES MAIN WHARF
(P.W.D. Ref. No. 33)

HEWES DOCK
(P.W.D. Ref. No. 37)

500-TON CAPACITY VERTICAL BOAT LIFT AT
MERRILL-STEVENS DRY DOCK CO., MAIN YARD
(P.W.D. Ref. No. 40)

MERRILL-STEVENS DRY DOCK CO.,
MAIN YARD, FITTING-OUT DOCK
(P.W.D. Ref. No. 43)

EBSARY FOUNDATION CO., SLIP
(P.W.D. Ref. No. 45)

DADE COUNTY, DIVISION OF WATER CONTROL WHARF
(P.W.D. Ref. No. 46)

ANTILLEAN MARINE SHIPPING WHARF
(P.W.D. Ref. No. 49)

CARIB OCEAN SHIPPING,RIVER MARINE TERMINAL WHARF
(P.W.D. Ref. No. 59)

SOUTHERN & CARIBBEAN AGENCIES,
AIR-MARINE TERMINAL WHARF
(P.W.D. Ref. No. 60)

SLIP FOR MOBILE VERTICAL BOAT LIFT
AT JONES BOAT YARD, UPPER WHARF
(P.W.D. Ref. No. 61)

BERNETT'S MOORING
(P.W.D. Ref. No. 63)

BYRD DIVING & SALVAGE WHARF
(P.W.D. Ref. No. 64)

HANDLING GENERAL CARGO AT BAY VIEW MARINE TERMINAL WHARF
(P.W.D. Ref. No. 65)

UNIVERSAL SHIPPING AGENCY WHARF
(P.W.D. Ref. No. 67)

BERNUTH MARINE SHIPPING DOCK NO. 1
(P.W.D. Ref. No. 68)

FLORIDA YACHT BASIN SLIP; CENTER PIER
(P.W.D. Ref. No. 70)

1,000-TON CAPACITY MARINE RAILWAY AT MESA MARINE REPAIRS PLANT
(P.W.D. Ref. No. 72)

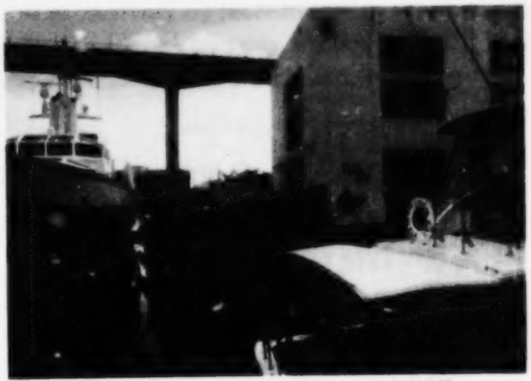
HOWARD BACKUS TOWING, SLIP
(P.W.D. Ref. No. 74)

TRUJILLO SHIP SERVICES,
MARINE CARGO TERMINAL
(P.W.D. Ref. No. 76)

RIVERSIDE SHIPPING WHARF
(P.W.D. Ref. No. 78)

FLORIDA CARIB FISHERY WHARF
(P.W.D. Ref. No. 84)

700-TON CAPACITY MARINE RAILWAY AT
MIAMI SHIPYARDS CORP. REPAIR PLANT
(P.W.D. Ref. No. 85)



MOORING PATROL VESSEL AT U. S. CUSTOMS
SERVICE, SOUTHEAST REGION WHARF
(P.W.D. Ref. No. 88)

PORT OF MIAMI, FLORIDA

PORT AND HARBOR FACILITIES

PIERS, WHARVES, AND DOCKS

A total of 88 piers, wharves, and docks are described in this report for the Port of Miami, Florida. Twenty-eight are located on Biscayne Bay, primarily along the main ship channel and south channels serving Dodge and Lummus Islands, the city's main port area for deep-draft navigation. The remaining facilities serving shallower-draft navigation are located along the Miami River and Miami Canal. Each facility is described in detail under a reference number in the table of Piers, Wharves, and Docks beginning on page 25. These reference numbers designate facility locations on the accompanying Port Facilities Map.

There are no terminals at the Port of Miami engaged in handling liquid commodities other than petroleum or dry bulk commodities. However, at the time of survey, a facility was under construction on the Miami Canal for the handling of scrap metal.

The table on the following page summarizes the functional uses of the various piers, wharves, and docks (P.W.D.'s). Many of these facilities are used for multiple purposes, as indicated in the table; each can be identified by its respective P.W.D. reference number.

The waterfront facilities in the port area used exclusively by recreational or active military craft, and generally those docking facilities providing non-maritime use are not included in this report. Non-active docking facilities in good physical condition are included.

A summary of the facilities engaged in handling general cargo is on page 24.

PURPOSE FOR WHICH USED

LOCATION	A	BISCAYNE BAY																			
P.W.D. REFERENCE NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Cargo handling:																						
General cargo:																						
Conventional........						●									●	●	●					●
Containerized.......						●									●	●	●			●		●
Roll-on roll-off....															●	●	●				●	●
Newsprint............												●										
Petroleum products....			●																			
Fueling small vessels....			●							●												
Passengers...............													●	●	●	●						
Ferry (vehicular and passenger)............		●							●													
Handling supplies and equipment.............				●																		
Mooring:																						
Barges................																		●				
Cruise vessels........													●	●	●	●						
Fishing vessels.......											●											
Government equipment..					●																	
Harbor craft/tugs.....			●																			
Launches..............	●																					
Oceanographic research vessels............								●														
Pilot boats...........																			●			
Miscellaneous.........					●		●	●			●											

A - GOVERNMENT CUT

PURPOSE FOR WHICH USED

LOCATION	BISCAYNE BAY						LEFT BANK, MIAMI RIVER															
P.W.D. REFERENCE NUMBER	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Cargo handling:																						
General cargo:																						
Conventional........			●				●															
Containerized.......			●				●															
Roll-on roll-off....			●																			
Bananas...............	●																					
Seafood...............												●		●		●						
Fueling (small vessels)..												●	●									
Passengers...............				●																		
Marine repair............																	●	●	●	●	●	●
Outfitting...............																					●	
Handling equipment and supplies...............												●										
Icing fishing vessels....												●										
Mooring:																						
Barges................										●												
Cruise vessels........				●		●																
Fishing vessels.......									●			●		●		●						
Harbor craft/tugs.....		●																				
Oceanographic research vessels............		●																				
Miscellaneous.........					●	●		●			●											
Not operated or used.....															●							

PURPOSE FOR WHICH USED

LOCATION	B			NORTH SIDE, MIAMI CANAL										SOUTH SIDE, MIAMI CANAL								
P.W.D. REFERENCE NUMBER	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Cargo handling:																						
General cargo:																						
Conventional........			●	●	●	●	●	●						●	●	●					●	
Containerized.......			●	●	●	●									●	●						●
Roll-on roll-off....			●												●							
Heavy lift items....						●																
Automobiles...........					●																●	
Lumber................																						
Machinery.............	●				●																	
Scrap metal...........											●											
Steel/steel products..					●																	
Marine repair...........									●								●	●				
Drydocking..............																	●	●				
Repairs to own equipment.	●																				●	
Handling equipment and supplies..............	●																			●		
Mooring:																						
Barges................										●												
Company-owned equipment...........	●	●																		●	●	
Fishing vessels.......																			●			
Harbor craft/tugs.....										●												
Miscellaneous.........												●	●		●							

B - LEFT BANK, MIAMI RIVER

PURPOSE FOR WHICH USED

LOCATION	C		RIGHT BANK, MIAMI, RIVER																			
P.W.D. REFERENCE NUMBER	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
Cargo handling:																						
General cargo:																						
Conventional.........	●	●	●							●		●					●		●			
Containerized.......	●	●															●		●			
Seafood...............													●	●		●		●				
Fueling (small vessels)..																				●		
Marine repair............				●	●	●					●			●	●				●			
Outfitting...............											●								●			
Repairs to own equipment.		●						●											●			
Handling equipment and supplies...............														●				●		●		
Icing fishing vessels....														●								
Mooring:																						
Company-owned equipment...........		●						●														
Fishing vessels.......													●	●		●		●				
Government equipment..																						●
Pilot boats...........									●													
Miscellaneous.........							●															
Not operated or used.....																					●	

C - SOUTH SIDE, MIAMI CANAL

SUMMARY OF GENERAL CARGO HANDLING

P.W.D. REF. NO.	LOCATION AND OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	TRANSIT SHEDS		CONTAINER FREIGHT STATION		CONTAINER STORAGE CAPACITY	OPEN STORAGE AREA (ACRES)
				NO.	CARGO SPACE (SQ.FT.)	NO.	(SQ.FT.)		
	BISCAYNE BAY DEEP-DRAFT FACILITIES								
6	Island Terminal Co..............	1,457	22-35	-	-	-	-	1,000	5.5
	Metropolitan Dade County								
	Seaport Department								
	Dodge Island								
15	Bays 25-40..............	1,920	36	2	288,000	-	-	-	3
16	Bays 41-54..............	1,680	36	1	55,700	-	-	-	-
17	North Wharf, Bays 55-62.	900	28-29	-	-	1	75,000	450	-
22	South Wharf, Bays 67-76.	460&400	25	-	-	2	100,000	1,800	18
25	South Wharf, Bays 85-97.	762&609	25	-	-	1	102,000	600	23
	Lummus Island								
20	Container Wharf........	3,400	36-25	-	-	-	-	2,000	150
21	South Roll-on Roll-off Wharf.................	300	27	-	-	-	-	-	-
	MIAMI RIVER/CANAL FACILITIES								
49	Antillean Marine Shipping Corp..	618	12	2	25,000	-	-	800	-
83	Bahamas International Co., Ltd..	200	15	-	-	-	-	-	-
65	Bay View Marine Terminal, Inc...	400	14	4	25,000	-	-	-	-
66	Bernuth Agencies, Inc...........	385	10-14	-	-	-	-	200	-
68	Bernuth Marine Shipping, Inc....	540	10-14	-	-	2	19,900	200	-
52	Best Terminal, Inc..............	250	10	-	-	-	-	-	0.3
59	Carib Ocean Shipping, Inc.......	1,050	13	1	7,500	-	-	-	3.2
47	East River Terminals, Inc.......	685	10-12	-	-	-	-	350	-
48	Hyde Shipping Corp..............	935	13	-	-	-	-	350	-
51*	Lovelace, Michael...............	100	10	-	-	-	-	-	0.2
85	Miami Ship Services, Inc........	218	12	1	4,000	-	-	-	-
50	Pioneer Shipping, Inc...........	530	12	1	13,200	-	-	600	-
78	Riverside Shipping, Inc.........	230	10	-	-	-	-	-	-
60	Southern and Caribbean Agencies, Inc................	1,019	15	1	30,000	1	48,000	2,000	-
69	Star Marine Terminal, Inc.......	420	10	1	3,000	-	-	400	-
76	Trujillo Ship Services, Inc.....	435+180	15	1	4,500	-	-	-	-
67	Universal Shipping Agency and Tropical Trading Corp.........	280	11	1	7,500	-	-	-	-
29	Victoria Shipping Line, Inc.....	200	12-15	-	-	-	-	100	-
58	West River Terminals, Inc.......	205	11	-	-				

*Inactive at time of survey.

RPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 985	14325 Dock Code No. 981	14325 Dock Code No. 977		
FERENCE NUMBER ON MAP NO. 1	1	2	3		
ME	University of Miami, Rosenstiel School Station Slip.	Island Developers Ltd., Fisher Island Ferry Dock.	Coastal Fuels Marketing, Fisher Island Terminal Dock and Slip.		
CATION ON WATERFRONT	South side, inner end of Government Cut, north side of Fisher Island, Miami Beach. Fisher Island.	East shore of Biscayne Bay, north side of Fisher Island, Miami Beach. 1 Fisher Island Drive	East side of Biscayne Bay, center portion, north side of Fisher Island, Miami Beach. Fisher Island.		
NED BY	University of Miami.	Island Developers, Ltd.	Coastal Fuels Marketing, Inc.		
RATED BY	University of Miami, Rosenstiel School of Marine and Atmospheric Sciences, and U.S. Geological Survey.	Island Developers, Ltd.	Coastal Fuels Marketing, Inc.		
RPOSE FOR WHICH USED	Mooring launches.	Landing for vehicular and passenger ferry to MacArthur Causeway.	Receipt and shipment of petroleum products; fueling vessels; mooring harbor tugs.		
PE OF CONSTRUCTION	Slip formed by concrete bulkheads with concrete-surfaced solid fill.	Concrete pile, concrete-decked wharf with adjustable steel transfer bridge, fronted by timber ferry rack and one timber guide dolphin on each side.	Concrete-capped, steel sheet pile bulkhead with solid fill; fronted by timber fender system forming slip and wharf above entrance to slip.		
SCRIPTION	Slip	Transfer Bridge	Face of wharf	Head of slip	Sides of slip
mensions (Feet)	107 by 40	40 by 25	800	150	490, each
pth Alongside at MLW Do.	8	10-12	36	15-20	15-20
easting Distance Do.	100, each side.	50	800	150	490, each
al Berthing Space Do.	100, each side.	50 by 100	800	150	490, each
dth of Apron Do.	Open.	-	Open.	Open.	30 & open.
ght of Deck at MLW Do.	5	6	6		
d Capacity (Lbs. per Sq. Ft.)	-	-	-		
hted or Unlighted	Lighted.	Lighted.	Lighted.		
HANICAL HANDLING FACILITIES	Two 2-ton, electric, overhead boat hoists inside building over slip.	None.	Two 10- and two 6-inch, electric, swivel-jointed pipeline loading arms located on west side of slip. Two 10- and two 8-inch, electric swivel-jointed pipeline loading arms mounted on elevated steel frame located at face of wharf.		
LWAY CONNECTIONS	None.	None.	None.		
HWAY CONNECTIONS	Via Fisher Island roads, asphalt, various widths.	Via access road from Fisher Island Road, asphalt, various widths.	Via Fisher Island roads, asphalt, various widths.		
ER SUPPLY (For Vessels)	Through 2 1/2 inch line.	Through 2 1/2 inch line..	Through 4-inch line with 1 1/2- and 2 1/2-inch hose connections.		
CTRIC CURRENT (For Vessels)	A.C., 110 volts.	None.	None.		
E PROTECTION her Than City)	Hydrant, hose hand extinguishers, foam cart, and security patrol.	Hydrant, hose, hand extinguishers and security patrol.	Foam system, chemical carts, water line, hose, hand extinguishers, and security patrol.		
ARKS	Slip is enclosed by roof assembly consisting of reinforced concrete columns, steel roof trusses, and built-up roofing. School complex in rear consists of laboratories, shops, dormitories, offices, cafeteria and caretakers house.	Private facility for use only by residents and those having business on Fisher Island.	A diesel fueling station is located at west end of wharf with water depth of 36 feet. One 24-, one 16- and one 8-inch pipelines extend from wharf, and one 8-inch pipeline extends from west side of slip to 12 steel storage tanks; total capacity 667,190 barrels. One 4-inch pipeline extends to diesel fueling station from 3 steel storage tanks, total capacity 1,200 barrels.		

CORPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 961	14325 Dock Code No. 347			14325 Dock Code	
REFERENCE NUMBER ON MAP NO. 1	4	5			6	
NAME	Island Developers, Fisher Island Barge Slip.	U.S. Coast Guard Base Miami Beach, Mooring Wharves.			Island Terminal Co., Ge Wharves.	
LOCATION ON WATERFRONT	East shore of Biscayne Bay, north side of Fisher Island, 1,600 feet from west end of island, Miami Beach. 1 Fisher Island Drive	East shore of Biscayne Bay, Causeway Island, south side of MacArthur Causeway, Miami Beach. 100 MacArthur Causeway.			East side of Biscayne side, east end of MacAr Causeway, Miami Beach. 120 MacArthur Causeway.	
OWNED BY	Island Developers, Ltd.	United States Government.			Causeway Terminal.	
OPERATED BY	Island Developers, Ltd.	U. S. Coast Guard.			Island Terminal Co.	
PURPOSE FOR WHICH USED	Handling miscellaneous supplies and equipment.	Mooring U.S. Coast Guard vessels; mooring seized vessels.			Receipt and shipment of containerized and conve general cargo in forei domestic trade.	
TYPE OF CONSTRUCTION	Rectangular slip formed by steel sheet pile retaining walls with asphalt-surfaced solid fill on two sides; fronted by timber fender system.	Rectangular island formed by steel sheet pile bulkheads supporting concrete retaining walls with part concrete-, part asphalt-surfaced solid fill; fronted by part timber- and part rubber fender system. A 50- by 6-foot float for landing small boats and a timber pile, steel runway boat hoist slip front east side. (See Remarks.)			Part concrete-capped, pile bulkhead with conc surfaced solid fill; fr (Slip) side by rubber and on Channel side by system.	
DESCRIPTION	Slip	Channel side	East side	West Side	Slip side	Cha
Dimensions (Feet)	160 by 45	395	1,025+80	250+870	42+940	757
Depth Alongside at MLW Do.	8-20	25	4-11	20	22-35	31-
Breasting Distance Do.	160	395	1,025	250+850	700	757
Total Berthing Space Do.	160	395	1,025	250+850	700	757
Width of Apron Do.	Open.	Open	0,15,20,30,	10,50-60	Open.	Ope
Height of Deck at MLW Do.	4	10		Piers; 7	7-9	7-9
Load Capacity (Lbs. per Sq. Ft.)	-	1,000		Piers; 200	1,000	
Lighted or Unlighted	Lighted.	Lighted.			Partly lighted.	
MECHANICAL HANDLING FACILITIES	None.	One 30-ton, diesel, mobile boat lift; one 15-ton diesel and one 6-ton, gasoline, mobile cranes with 60- and 20-foot booms, respectively; eight 1 1/2- and six 1/2-ton, gasoline, forklift trucks.			Two 300-ton, diesel, c each with 150 -foot bo 40-ton diesel top lift equipped with adjustab for handling container 9-ton diesel fork lift	
RAILWAY CONNECTIONS	None.	None.			None.	
HIGHWAY CONNECTIONS	Via Fisher Island roads, asphalt, various widths.	Via bridge approach, concrete, 18 feet wide, from MacArthur Causeway, asphalt, dual lane.			Via MacArthur Causeway, dual lane.	
WATER SUPPLY (For Vessels)	Through one inch line.	Through 6-inch line with 2 1/2-inch hose connections			Through 2 1/2 inch lin	
ELECTRIC CURRENT (For Vessels)	A.C., 110 volts.	A.C., 110/208/480 volts.			A.C., 110/220 volts.	
FIRE PROTECTION (Other Than City)	Hand extinguishers, water line, and hose.	Fire hydrants, hand extinguishers, standpipes, hose reels, fog nozzles, and 24-hour duty.			Hydrants, hose, hand e and security patrol.	
REMARKS	-	Approach causeway at inner end of west side forms head of 295-foot-wide slip with wharf and adjacent Ref. No 6. Additional berthing space is available at head of slip for small craft along 3 parallel, 100- by 5-foot, concrete pile timber-decked piers spaced 50 feet apart extending from an 8-foot wide walkway of similar construction parallel to bridge. One 4-inch sewage pipeline serves wharves.			Approximately 5.5 acre storage area located i capacity for approxima twenty-foot equivalent stacked 4-high. A 36+ L-shaped, timber pile, pier located at inner side is used by Coasta Marketing Inc. as moor launches used to trans to company's Fisher Is (Ref. No. 3).	

RPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 337	14325 Dock Code No. 335	14325 Dock Code No. 340	
FERENCE NUMBER ON MAP NO. 1	7	8	9	
ME	City of Miami Beach, Causeway Island Wharf.	Florida Power & Light Co., Miami Beach Wharf.	Island Developers, MacArthur Causeway Ferry Dock.	
CATION ON WATERFRONT	East side of Biscayne Bay, south side of MacArthur Causeway, 800 feet west of outer end, Miami Beach. 140 MacArthur Causeway.	East side of Biscayne Bay, south side of MacArthur Causeway, 1,000 feet west of outer end, Miami Beach. 158 MacArthur Causeway.	East side of Biscayne Bay, south side of MacArthur Causeway, 1,800 feet west of outer end, Miami Beach. 178 MacArthur Causeway.	
NED BY	City of Miami Beach	Florida Power and Light Co.	Island Developers, Ltd.	
ERATED BY	City of Miami Beach	Florida Power and Light Co.	Island Developers, Ltd.	
RPOSE FOR WHICH USED	Mooring miscellaneous vessels.	Mooring oceanographic research and other vessels.	Landing for vehicular and passenger ferry to Fisher Island.	
PE OF CONSTRUCTION	Steel sheet pile bulkhead with concrete-surfaced solid fill; fronted by rubber tire fenders. A 31- by 20-foot, raised, concrete, loading platform is located at east end.	Concrete-capped, steel sheet pile bulkhead with part concrete-surfaced solid fill; fronted by rubber tire fenders.	Concrete pile, concrete-decked wharf with adjustable steel transfer bridge, fronted on west side by timber ferry rack and two timber breasting/guide dolphins on shore side.	
SCRIPTION	Face	Face	Transfer bridge	Channel side
mensions (Feet)	200	637	40 by 25	200
pth Alongside at MLW Do.	27	13-20	10-12	-
rthing Distance Do.	200	637	50 w/dolphins	-
tal Berthing Space Do.	200	637	50 by 96	-
dth of Apron Do.	13.3 and 7.5	5 & 45	70	
ight of Deck at MLW Do.	6	6	6	
ad Capacity (Lbs. per Sq. Ft.)	1,000	1,000	-	
ghted or Unlighted	Lighted.	Lighted.	Lighted.	
CHANICAL HANDLING FACILITIES	None.	Rental equipment is available as required.	None.	
ILWAY CONNECTIONS	None.	None.	None.	
GHWAY CONNECTIONS	Via MacArthur Causeway, asphalt, dual lane.	Via MacArthur Causeway, asphalt, dual lane.	Via MacArthur Causeway, asphalt, dual lane.	
TER SUPPLY (For Vessels)	None.	Through 2-inch line.	Through 2 1/2 inch line.	
ECTRIC CURRENT (For Vessels)	None.	A.C., 110/208 volts.	None.	
RE PROTECTION (ther Than City)	Hand extinguishers.	Hydrants; alarm system in building.	Hydrant, hose, hand extinguishers, and security patrol.	
MARKS	One 170- by 78-foot, steel frame, concrete block building at rear is used for storing materials and equipment and provides office space for Mechanical Maintenance Department.	Florida Power and Light Co. operates a material testing laboratory and substation in rear.	Private facility for use only by residents and those having business on Fisher Island.	

CORPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 255		14325 Dock Code No. 255	14325 Dock C
REFERENCE NUMBER ON MAP NO. 1	10		11	12
NAME	Watson Island, Fuel & Fishing Supply Wharf.		Watson Island Wharf.	Miami Herald Publishin Dock.
LOCATION ON WATERFRONT	Biscayne Bay, west side of Watson Island, 1,200 feet south of MacArthur Causeway Bridge. 1050 MacArthur Causeway		Biscayne Bay, west side of Watson Island, south of MacArthur Causeway Bridge. 1060 MacArthur Causeway	Biscayne Bay, west sid Intracoastal Waterway, Venetian and MacArthur 1 Herald Plaza
OWNED BY	City of Miami.		City of Miami.	Miami Herald Publishin
OPERATED BY	Watson Island, Fuel & Fishing Supply.		City of Miami.	Miami Herald Publishin
PURPOSE FOR WHICH USED	Fueling small vessels and recreational craft.		Mooring small vessels, fishing boats, and charter boats.	Receipt of newsprint b
TYPE OF CONSTRUCTION	Timber pile, timber-decked wharf, fronting concrete bulkhead with solid fill; fronted by vertical plastic pipe fenders.		Concrete bulkhead with solid fill; north 800-foot portion is capped by a 5-foot wide, cantilevered, concrete slab, a timber walkway extends along south 200-foot portion; all fronted by timber fender system.	Concrete-capped steel bulkhead, with concret solid fill; fronted by system.
DESCRIPTION	Face	Sides	Face	Face
Dimensions (Feet)	141	7, each	1,000	495
Depth Alongside at MLW Do.	15	-	8-15	14-17
Breasting Distance Do.	141	-	1,000	495
Total Berthing Space Do.	141	-	43 boats	495
Width of Apron Do.	Open.		Open.	18 and open.
Height of Deck at MLW Do.	6		6	5.5
Load Capacity (Lbs. per Sq. Ft.)	-		-	1,000
Lighted or Unlighted	Lighted.		Lighted.	Lighted.
MECHANICAL HANDLING FACILITIES	None.		None.	One electrically opera elevated, steel, recei receives newsprint rol lift trucks on barge, mechanism rotates and at a time so as to pos release into a gravity extending through a 2d receiving door of buil where they are transfe conveyor belts leading areas; rate 120 rolls
RAILWAY CONNECTIONS	None.		None.	None.
HIGHWAY CONNECTIONS	Via access road, asphalt, 15 feet wide, from MacArthur Causeway, asphalt, dual lane.		Via access road, asphalt, 15 feet wide, from MacArthur Causeway, asphalt, dual lane.	Via NE 15th Street, an Place, each asphalt, 3 from Biscayne Boulevar Nos. 1 and 41) asphalt
WATER SUPPLY (For Vessels)	Through 3/4-inch line.		Through 3/4-inch line.	None.
ELECTRIC CURRENT (For Vessels)	A.C., 110 volts.		A.C., 110 volts.	None.
FIRE PROTECTION (Other Than City)	Hand extinguishers and hose.		Hand extinguishers.	Automatic fire detecti hose, hand extinguishe security patrol.
REMARKS	Operator maintains 5 metered pumps on wharf, 2 supplied by two diesel fuel storage tanks, total capacity 8,000 gallons, and 3 supplied by 2 gasoline storage tanks, total capacity 10,000 gallons.		-	Newspaper publishing b rear contains storage rolls of newsprint.

ORPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 285		14325 Dock Code No. 285
FERENCE NUMBER ON MAP NO. 1	13		14
AME	Port of Miami, Dodge Island West Wharf, Berths Nos. 7 and 6.		Port of Miami, Dodge Island North Wharf, Bays 1 through 20.
CATION ON WATERFRONT	Biscayne Bay, west side of Dodge Island, north of Port Boulevard Causeway. South America Way.		Biscayne Bay, Inner end of north side of Dodge Island. South America Way.
WNED BY	Dade County Seaport Department.		Dade County Seaport Department.
PERATED BY	Dade County Seaport Department.		Dade County Seaport Department.
URPOSE FOR WHICH USED	Mooring cruise vessels; boarding passengers.		Mooring cruise vessels; boarding passengers.
YPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; two steel and concrete breasting dolphins in line with east face of Berth No. 7, connected to bulkhead by catwalk.		Concrete-capped, steel sheet pile bulkhead with part concrete- and part asphalt-surfaced solid fill; fronted by rubber loop and rubber tire fenders.
SCRIPTION	Berth No. 7	Berth No. 6	Face
mensions (Feet)	94+239	108+470	2,400+200
pth Alongside at MLW Do.	25	27	36
easting Distance Do.	239	470	2,600
tal Berthing Space Do.	356 w/dolphins	470	2,600
dth of Apron Do.	Open & 49	80, 40 and open	95, 45
ight of Deck at MLW Do.	7.5		7.5
ad Capacity (Lbs. per Sq. Ft.)	1,000		1,000
ghted or Unlighted	Lighted.		Lighted.
ANSIT SHEDS mber and Description	None. (See Remarks.)		None. (See Remarks.)
ngth and Width (Feet)			
ight Inside Do.			
oor Area for Cargo (Sq. Ft.)			
ad Capacity (Lbs. per Sq. Ft.)			
Cargo Doors			
CHANICAL HANDLING FACILITIES	None.		None.
ILWAY CONNECTIONS	None.		None.
GHWAY CONNECTIONS	Via South America Way, asphalt 30 feet wide, from Port and Biscayne Boulevards, each asphalt, dual lane.		Via South America Way asphalt, 30 feet wide, from Port and Biscayne Boulevards.
TER SUPPLY (For Vessels)	Through 8-inch line with 2-inch connections.		Through 8-inch line with 2 1/2-inch connection at each even numbered bay.
ECTRIC CURRENT (For Vessels)	A.C. , 120/240 volts.		A.C. 120/280/480 volts, at each odd numbered bay.
FIRE PROTECTION (Other Than City)	Sprinkler systems in passenger terminals, hydrants, hand extinguishers and security patrol.		Sprinkler systems in passenger terminals, hydrants, hand extinguishers and security patrol.
MARKS	The 94- and 108-foot sections at Berths Nos. 7 and 6, respectively, are used for handling roll-on roll-off trailers, vehicles and ship's supplies for stern-loading cruise vessels. One elevated adjustable gangway extends to each berth from passenger terminal at rear.		Five passenger terminals and 4 customs inspection stations are located at rear of wharf. Six passenger parking lots are located at rear of the terminals. Face of wharf extends 200 feet west of Bay 1. Five elevated adjustable gangways extend to face from passenger terminals at rear. Three office buildings located at rear of parking lots house Federal, State, and Port related functions.

PIERS, WHARVES, AND DOCKS

CORPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 285		14325 Dock Code No. 285
REFERENCE NUMBER ON MAP NO. 1	15		16
NAME	Port of Miami, Dodge Island North Wharf, Bays 21 through 40.		Port of Miami, Dodge Island North Wharf, Bays 4 through 54.
LOCATION ON WATERFRONT	Biscayne Bay, center section of north side of Dodge Island. Africa Way		Biscayne Bay, east section of north side of Doc Island. Africa Way and Asia Way.
OWNED BY	Dade County Seaport Department.		Dade County Seaport Department.
OPERATED BY	Dade County Seaport Department.		Dade County Seaport Department.
PURPOSE FOR WHICH USED	Bays 21-24: Mooring cruise vessels; boarding passengers. Bays 25-40: Receipt and shipment of containerized, conventional, and roll-on, roll-off general cargo in foreign and domestic trades.		Receipt and shipment of containerized, conventi and roll-on, roll-off general cargo in foreign domestic trades. Mooring cruise vessels; boar passengers.
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with solid fill; front portion of apron: concrete deck supported by concrete piles driven through solid fill; rear portion: asphalt-surfaced solid fill: wharf fronted by rubber loop fender system.		Concrete-capped, steel sheet pile bulkhead wit concrete- and part asphalt-surfaced solid fill fronted by rubber fender system.
DESCRIPTION	Face		Face
Dimensions (Feet)	480 + 1,920		1,680
Depth Alongside at MLW Do.	36		36
Breasting Distance Do.	2,400		1,680
Total Berthing Space Do.	2,400		1,680
Width of Apron Do.	71 and 59		70, 85 & open.
Height of Deck at MLW Do.	7.5		7.5
Load Capacity (Lbs. per Sq. Ft.)	1,000		1,000
Lighted or Unlighted	Lighted.		Lighted.
TRANSIT SHEDS Number and Description	Two - clear span, steel frame concrete block walls; part asphalt and part concrete floors.		One - steel frame, concrete walls; asphalt flo
	Shed A	Shed B	Transit Shed C
Length and Width (Feet)	840 & 740 by 200	1,000 by 200	445 by 201
Height Inside Do.	25-40	25-40	20-22
Floor Area for Cargo (Sq. Ft.)	126,400, net	161,600, net	55,700 net
Load Capacity (Lbs. per Sq. Ft.)	1,000	1,000	1,000
Cargo Doors (Feet)	Shipside: twelve, 22 by 14; rear: twelve, 22 by 14 and two, 20 by 20; east side: one, 20 by 20.	Shipside: twelve, 22 by 14: one, 22 by 20; rear: twelve, 22 by 14 and one, 20 by 20; each side: one, 20 by 20.	Shipside: six, 20 by 15 1/2; rear: four, 20 by 15 1/2; each end: one, 20 by 15 1/2.
MECHANICAL HANDLING FACILITIES	Equipment furnished by stevedoring companies.		Equipment furnished by stevedoring companies.
RAILWAY CONNECTIONS	One platform-level track serves adjacent sides of each transit shed and open storage areas, joins 4-track marshalling yard in rear; connects via Dodge Island Causeway with Florida East Coast Railway.		Two surface tracks on apron and one platform- track serving Transit Shed C join 4-track mar yard in rear; connect via Dodge Island Cause Florida East Coast Railway.
HIGHWAY CONNECTIONS	Via South America Way or Europe Way, each asphalt, 30 feet wide, from Port and Biscayne Boulevards.		Via Asia Way, asphalt, 30 feet wide from Port Biscayne Blvds., each asphalt, dual lane.
WATER SUPPLY (For Vessels)	Through 8-inch line with 2 1/2-inch connection at each even numbered bay.		Through 8-inch line with 2 1/2-inch connectio even numbered bay.
ELECTRIC CURRENT (For Vessels)	A.C. 120/280/480 volts, at each odd numbered bay.		A.C. 120/280/480 volts, at each odd numbered
FIRE PROTECTION (Other Than City)	Sprinkler systems in buildings, hydrants, hand extinguishers, two 6-inch fireboat connections and security patrol.		Sprinkler systems in buildings, hydrants, han extinguishers and security patrol.
REMARKS	West 740 & 840 by 200-foot portion of Shed A serves as a passenger terminal. One elevated, adjustable gangway extends to face from passenger terminal at rear. Approximately 3 acres of fenced open storage and a parking lot for cruise passengers is located at rear of transit sheds. In addition approximately 250 acres of open storage area for containers and general commodities is available at various locations on Dodge and Lummus Island.		A portion of Transit Shed C serves as a conte freight station. One elevated, adjustable ga extends to face from each of two passenger te located at rear.

S OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 285	14325 Dock Code No. 230	14325 Dock Code No. 330		
RENCE NUMBER ON MAP NO. 1	17	18	19		
	Port of Miami, Dodge Island North Wharf, Bays 55 through 62	Port of Miami, Lummus Island, North Barge Mooring.	Biscayne Bay Pilots Association Wharf.		
TION ON WATERFRONT	Biscayne Bay, east side of Dodge Island, north of Port Boulevard causeway to Lummus Island. Port Boulevard.	Biscayne Bay, north side, west end of Lummus Island, north of Port Boulevard causeway to Lummus Island. Port Boulevard.	East side of Biscayne Bay, east end of Lummus Island. 2911 Port Boulevard.		
D BY	Dade County Seaport Department.	Dade County Seaport Department.	Dade County Seaport Department.		
ATED BY	Dade County Seaport Department.	Dade County Seaport Department.	Biscayne Bay Pilots Association.		
POSE FOR WHICH USED	Receipt and shipment of containerized, conventional, and roll-on, roll-off general cargo in foreign and domestic trade.	Mooring barges.	Mooring pilot boats.		
OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with part concrete- and part asphalt-surfaced solid fill; fronted by timber and rubber fenders.	Row of 3 steel breasting dolphins with 180- by 2-foot steel walkway approach.	Concrete pile, concrete-decked L-shaped wharf extending from steel sheet pile bulkhead with solid fill.		
RIPTION	Face	Face	Face	Rear of face	North side
nsions (Feet)	900	230	60	52	40
h Alongside at MLW Do.	28-29	28-29	20	20	20
sting Distance Do.	900	230	60	52	40
l Berthing Space Do.	900	230	60	52	40
h of Apron Do.	85 & open	Open.	8		
ht of Deck at MLW Do.	7.5	7.5	7.5		
Capacity (Lbs. per Sq. Ft.)	1,000	1,000	-		
ted or Unlighted	Lighted.	Lighted.	Lighted.		
IT SHEDS er and Description	One - steel frame, masonry walls; asphalt floor. Shed D	None.	None.		
gth and Width (Feet)	600 by 201				
ht Inside Do.	20-22				
r Area for Cargo (Sq. Ft.)	75,000, net.				
Capacity (Lbs. per Sq. Ft.)	1,000				
o Doors	Shipside: Nine, 20 by 15 1/2. Rear: Four, 20 by 15 1/2. Each end: One, 20 by 15 1/2.				
ANICAL HANDLING FACILITIES	Equipment furnished by stevedoring companies.	None.	None.		
LWAY CONNECTIONS	Two surface tracks on apron, total length 900 feet, extending from trackage serving Ref. No. 16, join 4-track marshalling yard in rear; connect via Dodge Island Causeway with Florida East Coast Railway.	None.	None.		
WAY CONNECTIONS	Via driveway from Port Boulevard, extending from Biscayne Boulevard each asphalt, dual lane.	Via driveway, 24 feet wide, asphalt, from Port Boulevard, asphalt, dual lane.	Via Port Boulevard from Biscayne Boulevard.		
R SUPPLY (For Vessels)	Through 8-inch line with 2 1/2-inch connection at each even numbered bay.	None.	Through 1-inch line.		
TRIC CURRENT (For Vessels)	A.C. 120/280/480 volts, at each odd numbered bay.	None.	A.C.,. 110 volts.		
PROTECTION r Than City)	Sprinkler system in transit shed, hydrants, hand extinguishers, 4 1/2 inch fireboat connection and security patrol.	Security patrol.	Hand extinguishers water line and hose.		
RKS	One 85- by 75-foot, concrete pile concrete-decked platform at south end of berth is used for handling roll-on, roll-off cargo via vessels' stern ramps. Transit Shed D is used as a container freight station. Approximately 4.5 acres of paved open storage area located at rear of transit shed, for storage of approximately 450 twenty-foot containers on chassis including 24 positions for refrigerated cargo containers.	-	Three pilot boats are based at whaff. Pilot station, offices and living quarters are located in rear.		

CORPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 320	14325 Dock Code No. 320		
REFERENCE NUMBER ON MAP NO. 1	20	21		
NAME	Port of Miami, Lummus Island, Container Wharf.	Port of Miami, Dodge/Lummus Island, South Roll- Roll-off Slip.		
LOCATION ON WATERFRONT	Biscayne Bay, south side, east end of Lummus Island. 2600 Port Boulevard	Biscayne Bay, south side, between Lummus and Do Islands. 1850 Port Boulevard		
OWNED BY	Dade County Seaport Department.	Dade County Seaport Department.		
OPERATED BY	Dade County Seaport Department.	Dade County Seaport Department.		
PURPOSE FOR WHICH USED	Receipt and shipment of containerized cargo in foreign and domestic trade.	Receipt and shipment of roll-on, roll-off gener cargo in foreign and domestic trade.		
TYPE OF CONSTRUCTION	Part concrete pile, concrete-decked wharf, part concrete-capped steel sheet pile bulkhead with asphalt surfaced solid fill.	Rectangular slip formed by steel sheet pile ret walls with asphalt-surfaced solid fill; fronte rubber strip fenders.		
DESCRIPTION	Face	Head of slip	East side	West side
Dimensions (Feet)	3,400	300	400	460
Depth Alongside at MLW Do.	36-25	27	27	27
Breasting Distance Do.	3,400	300 and to	400	400
Total Berthing Space Do.	3,400	300	-	-
Width of Apron Do.	Open.	Open.		
Height of Deck at MLW Do.	12	7.5		
Load Capacity (Lbs. per Sq. Ft.)	1,000	1,000		
Lighted or Unlighted	Lighted.	Lighted.		
TRANSIT SHEDS Number and Description	None.	Use of transit sheds described under Ref. No.		
Length and Width (Feet)				
Height Inside Do.				
Floor Area for Cargo (Sq. Ft.)				
Load Capacity (Lbs. per Sq. Ft.)				
Cargo Doors				
MECHANICAL HANDLING FACILITIES	Six diesel-electric, traveling, container-handling cranes: Three 50-ton with hinged cantilever booms each having outboard reach of 132 feet, back reach of 65 feet and hoist height of 100 feet; and three 40-ton with retractable booms, each having outboard reach of 110 feet, back reach of 89 feet and hoist height of 92 feet. Cranes travel full length of wharf and have a loading/ unloading rate of approximately 40 containers per hour each. In addition the 50-ton cranes can handle heavy lift items up to 77 tons at an outboard reach of 85 feet.	Equipment furnished by stevedoring companies.		
RAILWAY CONNECTIONS	None.	None.		
HIGHWAY CONNECTIONS	Via Port Boulevard, asphalt, 30 feet wide and dual lane, from Biscayne Boulevard.	Via Port Boulevard, asphalt, dual lane, from Boulevard.		
WATER SUPPLY (For Vessels)	Through 12-inch line with 4 inch connections.	Through 12-inch line with 4 inch connections.		
ELECTRIC CURRENT (For Vessels)	A.C., 280/480 volts.	A.C., 110/280/480 volts.		
FIRE PROTECTION (Other Than City)	Hydrants, hand extinguishers and security patrol.	Hydrants, hand extinguishers and security pat		
REMARKS	Approximately 100 acres of open storage area for containers stacked and on chassis is available on Lummus Island including 2000 positions for refrigerated cargo containers. An additional 50 acres of open storage area is available on adjacent Dodge Island.	Vessels breast against sides of slip and hand over head of slip via vessels' stern ramps.		

OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 285		14325 Dock Code No. 285		14325 Dock Code No. 285	
NCE NUMBER ON MAP NO. 1	22		23		24	
	Port of Miami, Dodge Island, South Wharf, Bays 67 through 76.		Banana Supply Co. Wharf		National Oceanic & Atmospheric Administration Southeast Marine Support Facility Wharves.	
ION ON WATERFRONT	Biscayne Bay, south side, east end of Dodge Island. 1901 Australia Way.		Biscayne Bay, west side of slip on south side of Dodge Island, approximately 1,500 feet west of outer end. 1770 Port Boulevard.		Biscayne Bay, north and west sides of slip on south side of Dodge Island, approximately 1,700 feet west of outer end. 1600 Port Boulevard.	
BY	Dade County Seaport Department.		Dade County Seaport Department.		Dade County Seaport Department.	
ED BY	Dade County Seaport Department.		Banana Supply Co., Inc.		National Oceanic and Atmospheric Administration, Department of Commerce; and Coastal Tug & Barge.	
ES FOR WHICH USED	Receipt and shipment of containerized, conventional and roll-on, roll-off general cargo in foreign and domestic trade.		Receipt of bananas.		Mooring oceanographic research vessels and harbor tugboats.	
OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with part asphalt-surfaced solid fill; fronted by rubber fender system. A 114- by 60 foot, concrete pile, concrete-decked platform extends from face near west end for handling roll-on, roll-off cargo via vessels' stern ramps. A 70-foot continuation of bulkhead and 3 timber breasting dolphins in line with face form berth on west side of platform.		Concrete-capped, steel sheet pile bulkhead, with asphalt-surfaced solid fill; fronted by rubber fender system. Two timber breasting dolphins in line with face on inner end.		Concrete-capped, steel sheet pile retaining walls, with asphalt-surfaced solid fill; fronted by rubber fender system.	
IPTION	East side	West side	Face	Sides	North side	West side
sions (Feet)	460	70	215	50, each	290	801
Alongside at MLW Do.	25	25	27	-	25	25
ting Distance Do.	460	260 w/dolphins	400 w/dolphins	-	290	801
Berthing Space Do.	460	400	500	-	290	801
of Apron Do.	85 and open.		50		Open.	Open.
of Deck at MLW Do.	7.5		7.5		7.5	7.5
Capacity (Lbs. per Sq. Ft.)	1,000		1,000		1,000	1,000
ed or Unlighted	Lighted.		Lighted.		Unlighted.	
IT SHEDS er and Description	Two - concrete frame, masonry walls; concrete floors. Sheds F and E		None.		None.	
h and Width (Feet)	300 by 120, each.					
t Inside Do.	17, each.					
Area for Cargo (Sq. Ft.)	50,000, total.					
Capacity (Lbs. per Sq. Ft.)	1,000, each.					
Doors	Shipside: four 22 by 14, each Rear: four 22 by 14, each Ends: one 22 by 16, each					
ICAL HANDLING FACILITIES	Equipment furnished by stevedoring companies.		Forklift trucks.		One 6-ton, gasoline mobile crane and one 6-ton, gasoline forklift truck.	
AY CONNECTIONS	None.		None.		None.	
AY CONNECTIONS	Via Antarctica and Australia Ways, each asphalt, 24 feet wide from Port and Biscayne Boulevards, each dual lane.		Via driveway, asphalt 24 feet wide from Port Boulevard, extending, from Biscayne Boulevard, each asphalt, dual lane.		Via Port Boulevard, asphalt, dual lane, from Biscayne Boulevard.	
SUPPLY (For Vessels)	Through 8-inch line with 2 1/2 inch connections at each even numbered bay.		Through 2-inch line.		Through 2-inch line.	
RIC CURRENT (For Vessels)	A.C., 120/280/480 volts.		A.C., 440 volts.		A.C., 440 volts.	
PROTECTION r Than City)	Sprinkler systems in transit sheds hydrant, hand extinguishers, 4 1/2 inch fireboat connection and security patrol.		Hand extinguishers, hose, and security patrol.		Hydrants, hand extinguishers and security patrol.	
KS	Transit sheds are used as container freight stations as required. Approximately 18 acres of paved open storage area at rear for storage of approximately 1,800 twenty-foot containers on chassis.		Banana distribution building at rear has 8 truck loading positions.		Building complex in rear consists of offices, shop, and laboratories.	

CORPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 285	14325 Dock Code No. 285	14325 Dock Code	
REFERENCE NUMBER ON MAP NO. 1	25	26	27	
NAME	Port of Miami, Dodge Island South Wharf, Bays 85 through 97	Port of Miami, Dodge Island Southwest Passenger Terminal Wharf.	Miamarina Basin Commercia Moorings	
LOCATION ON WATERFRONT	Biscayne Bay, south side, center portion of Dodge Island approximately 2,500 feet from outer end. 1500 Port Boulevard.	Biscayne Bay, inner end of south side of Dodge Island. 1150 Port Boulevard.	Biscayne Bay, west and no of basin on south side of Boulevard Causeway. 401 Biscayne Boulevard.	
OWNED BY	Dade County Seaport Department.	Dade County Seaport Department.	City of Miami.	
OPERATED BY	Dade County Seaport Department.	Dade County Seaport Department.	City of Miami, Department Stadiums and Marinas.	
PURPOSE FOR WHICH USED	Receipt and shipment of containerized, conventional and roll-on, roll-off general cargo in foreign and domestic trade.	Mooring cruise vessels; boarding passengers.	Mooring miscellaneous ves	
TYPE OF CONSTRUCTION	Steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by vertical rubber fenders; A 122 by 78 foot concrete pile, concrete-decked platform extends from face for handling roll-on, roll-off cargo via vessels' stern ramps.	Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber fenders.	Concrete-capped, steel sh bulkhead with concrete-su solid fill; west side fro concrete pile, concrete-d piers, and parallel rows mooring piles forming boa north side fronted by tim piles.	
DESCRIPTION	Face	Face	West side	No
Dimensions (Feet)	762+123+609	1,440	600	320
Depth Alongside at MLW Do.	25	25	9	9
Breasting Distance Do.	762+609	1,440	600 end to	240
Total Berthing Space Do.	762+609	1,440	30 slips	240
Width of Apron Do.	Open.	100	Open.	Open.
Height of Deck at MLW Do.	7	12	4.5	4.5
Load Capacity (Lbs. per Sq. Ft.)	1,000	1,000	-	
Lighted or Unlighted	Lighted.	Lighted.	Lighted.	
TRANSIT SHEDS Number and Description	One - steel and concrete frame masonry walls, asphalt-surfaced floor. Shed G	None. (See Remarks.)	None.	
Length and Width (Feet)	620 by 245			
Height Inside Do.	22, approximately.			
Floor Area for Cargo (Sq. Ft.)	102,000 net.			
Load Capacity (Lbs. per Sq. Ft.)	1,000			
Cargo Doors	Shipside: five 22 by 16. Rear: five 22 by 16. West end: one 22 by 20. (See Remarks.)			
MECHANICAL HANDLING FACILITIES	Equipment furnished by stevedoring companies.	None.	None.	
RAILWAY CONNECTIONS	Two platform level tracks along west side of transit shed join additional trackage serving port area; connect via Dodge Island Causeway with Florida East Coast Railway.	None.	None.	
HIGHWAY CONNECTIONS	Via Port Boulevard, asphalt, dual lane, from Biscayne Boulevard.	Via driveway, asphalt, 30 feet wide, from Port Boulevard extending from Biscayne Boulevard, each asphalt, dual lane.	Via driveway from Biscayn Boulevard, dual lane.	
WATER SUPPLY (For Vessels)	Through 8-inch line with 2 1/2 inch connections.	Through 8-inch line with 4-inch connections.	Through 1 1/2 inch line w inch connections.	
ELECTRIC CURRENT (For Vessels)	A.C. 120/280/480 volts.	A.C. 120/280/480 volts.	A.C., 120 volts.	
FIRE PROTECTION (Other Than City)	Sprinkler system in transit shed, hydrants, hand extinguishers and security patrol.	Sprinkler system in passenger terminal, hydrants, hand extinguishers and security patrol.	Chemical cart, hydrants, stations, hand extinguish security patrol.	
REMARKS	Transit shed serves as container freight station, having 42 shipside and 45 rear truck-loading stations at covered platforms and rail car loading platform on west side. Approximately 23 acres of paved open storage area for approximately 600 containers on chassis are located at rear.	Passenger terminal and a 34,000 square foot passenger parking lot are located at rear.	West face has thirty 60- boat slips. Remainder of mooring capacity for appr 200 recreational boats.	

CORPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. -	14326 Dock Code No. 040	14326 Dock Code No. 045		
REFERENCE NUMBER ON MAP NO. 1	28	29 Map No. 2	30 Map No. 2		
NAME	Miamarina Outer Wall Mooring.	Victoria Shipping Line Wharf.	Florida Power and Light Co., Miami River Wharf.		
LOCATION ON WATERFRONT	Biscayne Bay, west side of west basin wall on south side of Port Boulevard Causeway. 401 Biscayne Boulevard	Left bank, Miami River, approximately 500 feet above South Miami Avenue Bridge. 400 SW First Avenue	Left bank, Miami River, below S.W. Second Avenue Bridge. 122 SW Third Street		
OWNED BY	City of Miami.	Florida East Coast Railway Co.	Florida Power and Light Co.		
OPERATED BY	City of Miami, Department of Stadiums and Marinas.	Victoria Shipping Line, Inc.	Florida Power and Light Co.		
PURPOSE FOR WHICH USED	Mooring commercial and excursion vessels.	Receipt and shipment of containerized and conventional general cargo in foreign trade.	Occasional mooring of vessels.		
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with concrete-surfaced solid-fill; fronted by timber fender piles.	Steel sheet pile bulkhead with solid fill; fronted by rubber tire fenders.	Upper face: steel sheet pile bulkhead with solid fill; center face: steel sheet pile bulkhead with concrete-capped solid fill fronted by timber fender system; intake and lower face: steel sheet pile bulkhead with asphalt-surfaced solid fill.		
DESCRIPTION	Face	Face	Upper face	Center face	Intake and lower face .
Dimensions (Feet)	700	200	15+40	245	13+30+130+30
Depth Alongside at MLW Do.	10-11	12-15	10-12	10-12	10-12
Breasting Distance Do.	700	200	40	245	13+130
Total Berthing Space Do.	700	200	40	245	13+130
Width of Apron Do.	Open.	Open.	None.	6-12	None.
Height of Deck at MLW Do.	4.5	4	6 (See Remarks.)		
Load Capacity (Lbs. per Sq. Ft.)	-	-	-		
Lighted or Unlighted	Lighted.	Unlighted.	Lighted.		
MECHANICAL HANDLING FACILITIES	None.	One 30-ton diesel and one 4- and three 2-ton, gasoline forklift trucks. Rental cranes to 70-ton capacity are available as required.	None.		
RAILWAY CONNECTIONS	None.	None.	None.		
HIGHWAY CONNECTIONS	Via driveway from Biscayne Boulevard, dual lane.	Via driveway, gravel, 30 feet wide, from S.W. 3d Street, asphalt 36 feet wide.	Via driveway, asphalt, 30 feet wide, from S.W. 2d Street, asphalt 30 to 45 feet wide.		
WATER SUPPLY (For Vessels)	Through 1 1/2 inch line with 1/2 inch connections.	Through 2 inch line with 2 inch connections.	None.		
ELECTRIC CURRENT (For Vessels)	A.C., 120 volts.	None.	None.		
FIRE PROTECTION (Other Than City)	Chemical cart, hydrants, hose stations, hand extinguishers, and security patrol.	Hand extinguishers.	Security patrol.		
REMARKS	One 4-inch sewage pipeline serves wharf.	Open storage area at rear has capacity for 100 containers TEU stacked 2-high.	Open area at rear of wharf is used for storage of supplies and equipment and for employee parking. *Chain link fence extends along rear of bulkhead.		

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 077	14326 Dock Code No. 080	14326 Dock Code No. 08
REFERENCE NUMBER ON MAP NO. 2	31	32	33
NAME	East Coast Fisheries Lower Wharf.	Dade County, Maintenance Wharf.	East Coast Fisheries Main Whar
LOCATION ON WATERFRONT	Left bank, Miami River, below S.W. 1st Street Bridge. 140 S.W. North River Drive.	Left bank Miami River, below and beneath S.W. 1st Street Bridge. 101 S.W. North River Drive.	Left bank, Miami River, betwee 1st Street and W. Flagler Stre Bridges. 40 S.W. North River Drive.
OWNED BY	David and Peter Swartz.	Dade County.	David and Peter Swartz.
OPERATED BY	East Coast Fisheries, Inc	Dade County Public Works Department, Highway Construction and Maintenance Division.	East Coast Fisheries, Inc
PURPOSE FOR WHICH USED	Mooring fishing boats.	Occasional mooring of work barges.	Mooring miscellaneous vessels.
TYPE OF CONSTRUCTION	Concrete bulkhead with solid fill.	Concrete-capped, steel sheet pile bulkhead, with asphalt-surfaced solid fill.	Steel sheet pile bulkhead, wit concrete-surfaced solid fill; fronted by timber fender piles
DESCRIPTION	Face	Face	Face
Dimensions (Feet)	275	100	280
Depth Alongside at MLW Do.	8-9	3	9-2
Breasting Distance Do.	275	100	280
Total Berthing Space Do.	275	100	280
Width of Apron Do.	1 and open.	None. (Fence)	8 and open.
Height of Deck at MLW Do.	4-5	4-5	4
Load Capacity (Lbs. per Sq. Ft.)	-	-	250
Lighted or Unlighted	Partly lighted.	Lighted.	Unlighted.
MECHANICAL HANDLING FACILITIES	None.	One 3-ton, hand-operated hoist on monorail extends 5 feet beyond face of wharf.	None.
RAILWAY CONNECTIONS	None.	None.	None.
HIGHWAY CONNECTIONS	Via S.W. North River Drive, asphalt, 33 feet wide.	Via S.W. North River Drive, asphalt 33 feet wide.	Via S.W. North River Drive, a 33 feet wide.
WATER SUPPLY (For Vessels)	Through 2-inch line with 1 1/2 inch hose connection.	Through 3/4-inch hose connection.	Through 1 1/4-inch with 1-inc connection.
ELECTRIC CURRENT (For Vessels)	None.	A.C., 110 volts.	A.C., 110/220 volts.
FIRE PROTECTION (Other Than City)	Hose.	Hand extinguishers and hydrant.	Hand extinguishers and hydran
REMARKS	-	Dade County maintenance yard and office located at rear. Gate in fence allows access to wharf.	A 4-story building at rear of end is used for wholesale and sales and contains a restaura 2-story building at rear of l end is used for seafood proce A 1-story freezer plant is lo adjacent to the seafood-proce building.

S OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 090	14326 Dock Code No. 105	14326 Dock Code No. 110
RENCE NUMBER ON MAP NO. 2	34	35	36
	Atco Marine Service Dock.	Garcia Service Station Dock.	Better Bait Supply Dock.
TION ON WATERFRONT	Left bank, Miami River, above West Flagler Street Bridge. 28 N.W. North River Drive.	Left bank, Miami River, approximately 1,100 feet below N.W. 5th Street Bridge. 398 N.W. North River Drive.	Left bank, Miami River, approximately 900 feet below N.W. 5th Street Bridge. 404 N.W. North River Drive.
D BY	Atco Marine Service, Inc	Superior Oil Co.	Better Bait Supply, Inc.
ATED BY	Atco Marine Service, Inc	Garcia Service Station.	Better Bait Supply, Inc.
OSE FOR WHICH USED	Receipt of seafood; mooring, fueling, and icing fishing boats; handling supplies and equipment.	Fueling small vessels.	Receipt of seafood at upper section; mooring fishing boats at lower section.
OF CONSTRUCTION	Lower portion: steel sheet pile bulkhead, fronted by steel pile, steel-decked extension; upper portion: concrete bulkhead with concrete-surfaced solid fill; fronted by timber fender piles.	Concrete bulkhead with concrete-surfaced solid fill; fronted by timber fender system.	Concrete bulkhead with solid fill; lower portion fronted by 6-foot wide, timber pile, timber-decked extension.
RIPTION	Face	Face	Face
nsions (Feet)	243	35	50+75
h Alongside at MLW Do.	6-8	6-7	5-6
ting Distance Do.	243	35	50+75
l Berthing Space Do.	243	35	50+75
h of Apron Do.	8 and open.	4 and open.	6 and 15
ht of Deck at MLW Do.	4 and 6	4	6 and 7
Capacity (Lbs. per Sq. Ft.)	-	-	-
ted or Unlighted	Lighted.	Partly lighted.	Lighted.
ANICAL HANDLING FACILITIES	None.	None.	One 1/2-ton, electric hoist on monorail located on upper portion.
WAY CONNECTIONS	None.	None.	None.
WAY CONNECTIONS	Via S.W. North River Drive, asphalt, 33 feet wide.	Via S.W. North River Drive, asphalt, 33 feet wide.	Via S.W. North River Drive, asphalt 33 feet wide.
R SUPPLY (For Vessels)	Through 1 1/4-inch with line 3/4-inch hose connection.	None.	Through 1-inch line with 3/4-inch connections.
TRIC CURRENT (For Vessels)	A.C., 110/220 volts.	None.	A.C., 110 volts.
PROTECTION r Than City)	Hand extinguishers, water line, hose, and security patrol.	Hand extinguishers.	Hand extinguishers.
RKS	Buildings at rear are used for processing and freezer storage of seafood. Three metered pumps on wharf are supplied by two 4,000-gallon diesel fuel, and one 2,000-gallon gasoline storage tanks.	Three metered pumps on wharf are supplied by two 4,000-gallon, gasoline, and one 4,000-gallon, diesel fuel storage tanks.	Two buildings located at rear of wharf are used for processing seafood.

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 120	14326 Dock Code No. 121	14326 Dock Code N
REFERENCE NUMBER ON MAP NO. 2	37	38	39
NAME	Hewes Dock.	Sierra Sea Food Mooring.	Merrill-Stevens Dry Dock Yard, East Pier.
LOCATION ON WATERFRONT	Left bank Miami River, approximately 550 feet below N.W. 5th Street Bridge. 412 N.W. North River Drive.	Left bank, Miami River, approximately 400 feet below N.W. 5th Street Bridge. 444 N.W. North River Drive.	Left bank, Miami River, a 12th Avenue Bridge. 1270 N.W. 11th Street
OWNED BY	Robert and Lewis Hewes.	Sierra Sea Food, Inc.	Merrill-Stevens Dry Dock
OPERATED BY	Not operated.	Sierra Sea Food, Inc.	Merrill-Stevens Dry Dock
PURPOSE FOR WHICH USED	Not used.	Receipt of seafood; mooring fishing boats.	Mooring vessels for repai
TYPE OF CONSTRUCTION	Lower section: concrete bulkhead fronted by timber pile timber-decked extension. Upper section: concrete-capped, steel sheet pile bulkhead with concrete-surfaced solid fill; fronted by timber fender system and rubber tire fenders.	Offshore row of 9 timber piles with three 27- by 6-foot timber approaches.	Part timber-, part steel p timber-decked pier.
DESCRIPTION	Face	Breasting piles	Pier
Dimensions (Feet)	243	180	170 by 9
Depth Alongside at MLW Do.	9	10	13
Breasting Distance Do.	243	180	170
Total Berthing Space Do.	243	180	170
Width of Apron Do.	3-5 and 12	Open.	9
Height of Deck at MLW Do.	4	4	7
Load Capacity (Lbs. per Sq. Ft.)	-	-	-
Lighted or Unlighted	Lighted.	Lighted.	Lighted.
MECHANICAL HANDLING FACILITIES	One 20-ton, electric stiff-leg derrick with 50-foot boom.	One 1-ton, diesel forklift truck.	None.
RAILWAY CONNECTIONS	None.	None.	None.
HIGHWAY CONNECTIONS	Via S.W. North River Drive, asphalt, 33 feet wide.	Via S.W. North River Drive, asphalt, 33 feet wide.	Via N.W. 11th Street, aspha feet wide, from N. W. 12th asphalt, dual lane.
WATER SUPPLY (For Vessels)	Through 3/4-inch line.	Through 1-inch line with 3/4-inch connections.	Through 2-inch line with 3/ connections.
ELECTRIC CURRENT (For Vessels)	A.C., 110 volts.	A.C., 110 volts.	A.C., 110/220/440 volts; D. volts with portable generat
FIRE PROTECTION (Other Than City)	Hand extinguishers, water line, and hose.	Hydrants and hand extinguishers.	Plant fire department, pump hydrants in yard, chemical hand extinguishers, fire ho security patrol.
REMARKS	At time of survey, facilities were for sale or lease.	Building on opposite side of N.W. North River Drive at rear contains seafood processing, packaging, freezing and cold storage facilities.	Vessels are temporarily moo pier while awaiting access leaving adjacent haul out facilities. Upper side of forms a 50-foot wide slip w side of 155- by 5-foot walk for handling lines for mari way and vertical boat lift. 500-ton marine railway is l below and one 500-ton verti lift is located above walkw

s OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 171		14326 Dock Code No. 172			14326 Dock Code No. 173		
RENCE NUMBER ON MAP NO. 2	40		41			42		
	Merrill-Stevens Dry Dock Co., Main Yard, Slip No. 3 Repair Wharf.		Merrill-Stevens Dry Dock Co., Main Yard, Mid-Slip Repair Pier.			Merrill-Stevens Dry Dock Co., Main Yard, Slip No. 2 Repair Wharf.		
LOCATION ON WATERFRONT	Left bank, Miami River, approximately 140 feet above N.W. 12th Avenue Bridge. 1270 N.W. 11th Street		Left bank, Miami River, approximately 350 feet above N.W. 12th Avenue Bridge. 1270 N.W. 11th Street			Left bank, Miami River, approximately 400 feet above N.W. 12th Avenue Bridge. 1270 N.W. 11th Street		
D BY	Merrill-Stevens Dry Dock Co.		Merrill-Stevens Dry Dock Co.			Merrill-Stevens Dry Dock Co.		
RATED BY	Merrill-Stevens Dry Dock Co.		Merrill-Stevens Dry Dock Co.			Merrill-Stevens Dry Dock Co.		
POSE FOR WHICH USED	Mooring vessels for repair.		Mooring vessels for repair.			Mooring vessels for repair.		
E OF CONSTRUCTION	Concrete bulkhead with concrete-surfaced solid fill; fronted by timber pile fender system.		Pier formed by concrete retaining walls with solid fill; fronted by timber pile fender system.			Pier formed by concrete retaining walls with solid fill; fronted by timber pile fender system.		
CRIPTION	Face	Upper side	Face	Lower side	Upper side	Face	Lower side	Upper side
ensions (Feet)	160	195	8	175	172	50	152	70
th Alongside at MLW Do.	12-13	3-10	8	4-8	4-8	11	4-11	0-11
asting Distance Do.	160	195	-	175	172	50	152	-
al Berthing Space Do.	160	195	-	175	172	50	152	-
th of Apron Do.	4-14, 9-22&open.	8 & covered.	-	8	8	12-25		
ight of Deck at MLW Do.	6		6			6		
Load Capacity (Lbs. per Sq. Ft.)	-		-			-		
Lighted or Unlighted	Lighted.		Lighted.			Lighted.		
HANICAL HANDLING FACILITIES	One 15-ton, diesel-hydraulic, mobile crane with 60-foot telescopic boom, and one 2-ton, gasoline forklift truck.		None.			One 3-ton, electric, stiff-leg derrick mounted on bull wheel with 35-foot boom located on upper side of face, and supported by concrete piles. Use of mobile equipment described under Ref. No. 40; additional equipment is available as required.		
LWAY CONNECTIONS	None.		None.			None.		
WAY CONNECTIONS	Via N.W. 11th Street, asphalt, 58 feet wide, from N. W. 12th Avenue, asphalt, dual lane.		Via N.W. 11th Street, asphalt, 58 feet wide, from N. W. 12th Avenue, asphalt, dual lane.			Via N.W. 11th Street, asphalt, 58 feet wide, from N. W. 12th Avenue, asphalt, dual lane.		
ER SUPPLY (For Vessels)	Through 2-inch line with 3/4-inch connections.		Through 2-inch line with 3/4-inch connections.			Through 2-inch line with 3/4-inch connections.		
CTRIC CURRENT (For Vessels)	A.C., 110/220/440 volts; D.C., 110 volts with portable generator.		A.C., 110/220/440 volts; D.C., 110 volts with portable generator.			A.C., 110/220/440 volts; D.C., 110 volts with portable generator.		
E PROTECTION her Than City)	Plant fire department, pumps, hydrants in yard, chemical carts, hand extinguishers, fire hose, and security patrol.		Plant fire department, pumps, hydrants in yard, chemical carts, hand extinguishers, fire hose, and security patrol.			Plant fire department, pumps, hydrants in yard, chemical carts, hand extinguishers, fire hose, and security patrol.		
ARKS	Upper side of wharf forms a 46-foot wide slip (Slip No 3) with Mid-Slip Repair Pier (Ref No. 41). Upper side of pier and Slip No. 3 are covered by a steel frame, metal-covered structure which also contains offices and carpenter shop. Contiguous structure also extends over Ref. No 41 and to the rear of Ref. No. 42. Marine repair plant office, machine shop, pipe rack, storeroom, and open storage areas are located at rear of face of wharf.		Upper side of pier forms 46-foot wide slip (Slip No. 2) with lower side of Slip No.2 Repair Wharf (Ref. No. 42). Pier and slip are covered as described under Ref. No. 40.			Lower side of pier forms 46-foot wide slip (Slip No. 2) with upper side of Slip No. 2 Repair Wharf (Ref. No. 41). Pier and slip are covered as described under Ref. No. 40.		

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 174		14326 Dock Code No. 175			14326 Dock Co	
REFERENCE NUMBER ON MAP NO. 2	43		44			45	
NAME	Merrill-Stevens Dry Dock Co., Main Yard, Fitting-Out Dock.		Merrill-Stevens Dry Dock Co., Main Yard, Storage Slip No. 1.			Ebsary Foundation Co. Wharves.	
LOCATION ON WATERFRONT	Left bank, Miami River, approximately 500 feet above N.W. 12th Avenue Bridge. 1270 N.W. 11th Street		Left bank, Miami River, approximately 750 feet west of N.W. 12th Avenue Bridge. 1270 N.W. 11th Street			Left bank, Miami Rive 22d Avenue Bridge. 2154 N.W. North River	
OWNED BY	Merrill-Stevens Dry Dock Co.		Merrill-Stevens Dry Dock Co.			Ebsary Foundation Co.	
OPERATED BY	Merrill-Stevens Dry Dock Co.		Merrill-Stevens Dry Dock Co.			Ebsary Foundation Co.	
PURPOSE FOR WHICH USED	Mooring vessels for repair and outfitting.		Mooring vessels for repair.			Mooring and repairing floating equipment; h construction material equipment.	
TYPE OF CONSTRUCTION	Concrete bulkhead with concrete-surfaced solid fill and concrete-paved aprons, fronted by timber pile fender system.		Slip formed by concrete retaining walls with concrete-surfaced solid fill; fronted by timber pile fender system. (See Remarks.)			Steel sheet pile rete with solid fill formi lower and upper wharv by timber pile fender	
DESCRIPTION	Face	Lower side	Head of slip	South side	North side	Slip	Lower wha
Dimensions (Feet)	230	65	32 and 8	225	228+28	109-200x65	70
Depth Alongside at MLW Do.	11-0	11	2	2-11	2-11	3-12	12
Breasting Distance Do.	230	-	32	225	228	109+200	70
Total Berthing Space Do.	230	-	32	225	228	109+200	70
Width of Apron Do.	6-40	16, covered.	65, covered.	7, covered.	6, covered.	Open.	Open.
Height of Deck at MLW Do.	5-6		6			5	
Load Capacity (Lbs. per Sq. Ft.)	-		-			-	
Lighted or Unlighted	Lighted.		Lighted.			Partly lighted.	
MECHANICAL HANDLING FACILITIES	Use of mobile equipment described under Ref. No. 40; additional equipment is available as required.		None.			Company-owned diesel up to 70-ton capacity as required.	
RAILWAY CONNECTIONS	None.		None.			None.	
HIGHWAY CONNECTIONS	Via N.W. 11th Street, asphalt, 58 feet wide, from N. W. 12th Avenue, asphalt, dual lane.		Via N.W. 11th Street, asphalt, 58 feet wide, from N. W. 12th Avenue, asphalt, dual lane.			Via N.W. North River 20 feet wide from N.W asphalt, 58 feet wide	
WATER SUPPLY (For Vessels)	Through 2-inch line with 3/4-inch connections.		Through 2-inch line with 3/4-inch connections.			Through 3/4 inch line	
ELECTRIC CURRENT (For Vessels)	A.C., 110/220/440 volts; D.C., 110 volts with portable generator.		A.C., 110/220/440 volts; D.C., 110 volts with portable generator.			None.	
FIRE PROTECTION (Other Than City)	Plant fire department, pumps, hydrants in yard, chemical carts, hand extinguishers, fire hose, and security patrol.		Plant fire department, pumps, hydrants in yard, chemical carts, hand extinguishers, fire hose, and security patrol.			Water line and hand e	
REMARKS	Buildings at rear contain plumbing, welding, sheet metal, electrical, stabilizer and engine repair shops.		Slip is covered by steel frame, metal-covered structure.			Marine contractor's o building located at r slip, and storage are wharves. A 20-foot-wi located at upper end	

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 310		14326 Dock Code No. 323			14326 Dock Code No. 329	
REFERENCE NUMBER ON MAP NO. 2	46		47			48	
NAME	Dade County, Division of Water Control Wharf.		East River Terminals Wharf.			Hyde Shipping Corp. Wharf.	
LOCATION ON WATERFRONT	Left bank, Miami River, approximately 450 feet above N.W. 27th Avenue Bridge. 2750 N.W. 20th Street.		Left bank, Miami River, approximately 1,300 feet above N.W. 27th Avenue Bridge. 2974 N.W. North River Drive.			North side, Miami Canal, opposite confluence with Tamiami Canal. 3033 N.W. North River Drive.	
OWNED BY	Dade County.		East River Terminals, Inc.			Martin L. Shaw, Jr.; Elizabeth S. Lipscomb; Seaboard System Railroad.	
OPERATED BY	Dade County, Public Works Department, Division of Water Control.		East River Terminals, Inc.			Hyde Shipping Corp.	
PURPOSE FOR WHICH USED	Mooring county-owned floating equipment.		Receipt and shipment of containerized, roll-on, roll-off, and conventional general cargo in foreign trade.			Receipt of containerized and conventional general cargo.	
TYPE OF CONSTRUCTION	Two timber pile, timber-decked wharf extensions from natural coral bank, separated by 50- by 20-foot boat launching ramp.		Lower section; coral bank; center and upper sections: concrete-capped steel sheet pile bulkheads with asphalt-surfaced solid fill; bulkheads are fronted by timber fender systems.			Lower section: part timber- and part concrete bulkhead with solid fill; upper section: concrete bulkhead with solid fill; all fronted by rubber tire fenders.	
DESCRIPTION	Lower wharf	Upper wharf	Lower section	Center section	Upper section	Lower section	Upper section
Dimensions (Feet)	75	100	200	175+57	310	540	395
Depth Alongside at MLW Do.	12	12	10-11	10-11	11-12	13	13
Breasting Distance Do.	75	100	200	175	310	540	395
Total Berthing Space Do.	75	100	200	175	310	540	395
Width of Apron Do.	6	6	Open.	20-50 & open.	Open.	Open.	Open.
Height of Deck at MLW Do.	5, approximately.		6	6	6	5	
Load Capacity (Lbs. per Sq. Ft.)	-		-			1,000	
Lighted or Unlighted	Lighted.		Lighted.			Lighted.	
MECHANICAL HANDLING FACILITIES	One 25-ton, diesel, mobile crane with 60-foot telescopic boom equipped with 1/4-cubic yard, clamshell bucket.		One 125-ton, diesel crawler crane with 100-foot boom, One 26-ton container lift truck and three 3 1/4- and three 1 1/2-ton, diesel forklift trucks.			One 140- and one 125-ton, diesel mobile cranes each with 100-foot boom; one 42-, and one 31-ton diesel container lift trucks and three 3-ton diesel forklift trucks.	
RAILWAY CONNECTIONS	None.		None.			None.	
HIGHWAY CONNECTIONS	Via N.W. 20th Street, asphalt, 20 feet wide, from N. W. North River Drive, asphalt, 58 feet wide.		Via N.W. North River Drive, asphalt, 58 feet wide.			Via N.W. North River Drive, asphalt, 58 feet wide.	
WATER SUPPLY (For Vessels)	Through 1-inch line with 3/4 inch hose connections.		Through 6- and 2-inch lines.			Through 2-inch line.	
ELECTRIC CURRENT (For Vessels)	None.		A.C., 100/220/240 volts.			A.C., 100/220 volts.	
FIRE PROTECTION (Other Than City)	Water line and hand extinguishers.		Water line, hose, hand extinguishers, and security patrol.			Water lines and hand extinguishers.	
REMARKS	Facility serves as a maintenance base for replenishment work performed along the Miami River and on spoil islands.		A 30-foot wide concrete loading platform is located at upper end of center section. Open area at rear has capacity for approximately 350 twenty-foot containers stacked 3-high.			Face of wharf is in line and contiguous with Ref. No. 49. Open area at rear has capacity for approximately 350 twenty-foot containers stacked 3- and 4-high.	

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 330		14326 Dock Code No. 369	14325 Dock C
REFERENCE NUMBER ON MAP NO. 2	49		50	51
NAME	Antillean Marine Shipping Wharf.		Pioneer Shipping Wharf.	Lovelace Dock.
LOCATION ON WATERFRONT	North side, Miami Canal, approximately 0.9 mile below CSX Rail Transport Bridge. 3038 N.W. North River Drive.		North side, Miami Canal, approximately 0.7 mile below CSX Rail Transport Bridge. 3250 N.W. North River Drive.	North side, Miami Cana approximately 0.4 mile Rail Transport Bridge. 3430 N.W. North River
OWNED BY	Consolidad Interamericana, S.A.		Eagle Tire Co., Inc.	Auto-Marine Engineers,
OPERATED BY	Antillean Marine Shipping Corp		Pioneer Shipping, Inc.	Michael Lovelace.
PURPOSE FOR WHICH USED	Receipt and shipment of containerized and conventional general cargo in foreign trade, including steel products, automobiles and machinery.		Receipt and shipment of containerized and conventional general cargo and heavy lift items. (See Remarks.)	Receipt and shipment c cargo. (See Remarks.)
TYPE OF CONSTRUCTION	Concrete bulkhead with asphalt-surfaced solid fill; fronted by rubber tire fenders.		Concrete bulkhead wall supported by timber piles with asphalt-surfaced solid fill; fronted by timber fender system.	Concrete bulkhead wit surfaced solid fill; timber fender piles.
DESCRIPTION	Face		Face	Face
Dimensions (Feet)	618		530	100
Depth Alongside at MLW Do.	12-3		12-4	10
Breasting Distance Do.	618		530	100
Total Berthing Space Do.	618		530	100
Width of Apron Do.	Open and 22.		Open.	Open.
Height of Deck at MLW Do.	7.3		6	6
Load Capacity (Lbs. per Sq. Ft.)	500		-	-
Lighted or Unlighted	Lighted.		Lighted.	Lighted.
TRANSIT SHEDS Number and Description	Lower shed: Concrete frame, concrete block walls concrete floor. Upper shed: steel frame metal-covered; concrete floor.		One - steel frame, masonry walls; concrete floor.	None.
	Lower shed	Upper Shed		
Length and Width (Feet)	270 by 15-135	158-130 by 100	190-130 by 100	
Height Inside Do.	12-15	11-15	20	
Floor Area for Cargo (Sq. Ft.)	14,000	11,000 net	13,200	
Load Capacity (Lbs. per Sq. Ft.)	1,000	1,000	1,000	
Cargo Doors	Shipside: five, 10 by 10; rear: same; upper side: one, 10 by 10, one, 15 by 12 1/2.	Shipside: two, 15 1/2 by 17 1/2.	Shipside: two 12 by 18; rear: five, 12 by 18.	
MECHANICAL HANDLING FACILITIES	Two 200- and one 90-ton, diesel mobile cranes with 100- and 82-foot booms, respectively; two 40-, and two 27 1/2-ton diesel container lift trucks and two 3-ton diesel forklift trucks.		One 100-ton, diesel mobile crane with 100-foot boom; two 40-ton diesel container lift trucks and four 2-ton forklift trucks.	None.
RAILWAY CONNECTIONS	CSX Rail Transport: Two surface tracks along rear of lower apron join one platform level track serving rear of lower transit shed.		One unused surface track serves transit shed connects with CSX Rail Transport.	None.
HIGHWAY CONNECTIONS	Via N.W. North River Drive, asphalt, 58 feet wide.		Via N.W. North River Drive, asphalt, 58 feet wide.	Via N.W. North River 58 feet wide.
WATER SUPPLY (For Vessels)	Through 2-inch line.		None.	Through 2-inch line.
ELECTRIC CURRENT (For Vessels)	A.C., 110/220 volts.		A.C., 110/220 volts.	A.C., 110 volts.
FIRE PROTECTION (Other Than City)	Sprinkler system in lower transit shed, hydrants, hose, hand extinguishers and security patrol.		Hydrants and hand extinguishers.	Hand extinguishers.
REMARKS	Face of wharf is in line and contiguous with Ref. No. 48. Open storage area at rear has capacity for approximately 800 twenty-foot containers stacked 3- and 4-high.		Two concrete pile, concrete-decked crane platforms are located on apron. Open area at rear has capacity for approximately 600 twenty-foot containers stacked 3- and 4-high.	At time of survey, fa inactive; however, pl its use as a general Approximately 7,500 s open storage area is rear.

OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 388	14326 Dock Code No. 388		14326 Dock Code No. 393	
NCE NUMBER ON MAP NO. 2	52	53		54	
	Best Terminal Dock.	Auto-Marine Engineers Dock.		Waterfront Construction, Wharf and Slip.	
ATION ON WATERFRONT	North side, Miami Canal, approximately 2,000 feet below CSX Rail Transport Bridge. 3460 N.W. North River Drive.	North side, Miami Canal, approximately 1,800 feet below CSX Rail Transport Bridge. 3464 N.W. North River Drive.		North side, Miami Canal, approximately 1,[illegible]00 feet below CSX Rail Transport Bridge. 3680 N.W. North River Drive.	
BY	Auto-Marine Engineers, Inc	Auto-Marine Engineers, Inc		Moby Marine Corp., Inc. and Waterfront Construction, Inc.	
ATED BY	Best Terminal, Inc.	Auto-Marine Engineers, Inc		Moby Marine Corp., Inc. and Waterfront Construction, Inc.	
OSE FOR WHICH USED	Receipt and shipment of conventional general cargo.	Mooring vessels for repair, installation, and removal of engines and other equipment.		Mooring tugs and barges.	
OF CONSTRUCTION	Concrete bulkhead with solid fill; fronted by timber fender piles.	Concrete bulkhead and rectangular slip with part concrete-surfaced solid fill; fronted by timber fender piles.		Part concrete-capped steel sheet pile- and part concrete bulkhead with solid fill forming rectangular slip flanked by marginal wharves along canal.	
RIPTION	Face	Face	Slip	Wharves	Slip
sions (Feet)	250	400	30 by 50	50+50	88 by 175
Alongside at MLW Do.	10	4-10	0-15	8-10	5-10
ting Distance Do.	250	400	50+50	50+50	175+175
al Berthing Space Do.	250	400	50+50	50+50	175+175
h of Apron Do.	Open.	6, 16, 40, open.		Open.	25 and open.
t of Deck at MLW Do.	6	6		3	3-5
d Capacity (Lbs. per Sq. Ft.)	-	6		-	
ed or Unlighted	Lighted.	Partly lighted.		Lighted.	
ICAL HANDLING FACILITIES	One 2- and one 1-ton diesel forklift trucks. Additional rental equipment is available as required.	Rental equipment is available as required.		Equipment is available as required.	
AY CONNECTIONS	None.	None.		None.	
AY CONNECTIONS	Via N.W. North River Drive, asphalt, 58 feet wide.	Via N.W. North River Drive, asphalt, 58 feet wide.		Via N.W. North River Drive, asphalt, 58 feet wide.	
SUPPLY (For Vessels)	Through 2-inch line with 3/4-inch connections.	Through 2-inch line with 3/4-inch connections.		None.	
IC CURRENT (For Vessels)	A.C., 110 volts.	A.C., 110/220 volts.		None.	
PROTECTION Than City)	Hand extinguishers.	Hand extinguishers.		None.	
S	Approximately 12,000 square feet of open storage area is located at rear.	Office, storage, and shop buildings located in rear.		Facility was partially under construction at time of survey.	

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 403	14326 Dock Code No. 414			14326 Dock Co
REFERENCE NUMBER ON MAP NO. 2	55	56			57
NAME	Miami River Recycling Wharf.	Hempstead Marine Slip.			Moby Marine Corp. Wha
LOCATION ON WATERFRONT	North side, Miami Canal, approximately 500 feet below CSX Rail Transport Bridge. 3700 N.W. North River Drive.	North side, Miami Canal, above CSX Rail Transport Bridge. 3850 N.W. North River Drive.			North side, Miami Can approximately 400 fee Rail Transport Bridge 3850 N.W. North River
OWNED BY	Atlas Iron Processors, Inc.	Jack Eisenberg.			Jack Eisenberg.
OPERATED BY	Miami River Recycling, Inc.	Hempstead Marine.			Moby Marine Corp., In
PURPOSE FOR WHICH USED	Shipment of scrap metal by barge.	Mooring small boats.			Mooring miscellaneous
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with concrete-surfaced solid fill. (See Remarks.)	Irregularly-shaped slip formed by concrete bulkhead, fronted by timber fender system.			Timber bulkhead with
DESCRIPTION	Face	Lower side	Head of slip	Upper side	Face
Dimensions (Feet)	475	130	40	70	210
Depth Alongside at MLW Do.	10	5-6	5	5-6	6
Breasting Distance Do.	475	130	-	70	210
Total Berthing Space Do.	475	130	-	70	210
Width of Apron Do.	25	Open.			Open.
Height of Deck at MLW Do.	6	5			5.0
Load Capacity (Lbs. per Sq. Ft.)	-	-			-
Lighted or Unlighted	Lighted.	Lighted.			Lighted.
MECHANICAL HANDLING FACILITIES	One-150 ton, diesel crawler crane with 100-foot boom. (See Remarks.)	None.			One 12-ton, gasoline, rough-terrain crane w boom.
RAILWAY CONNECTIONS	None.	None.			None.
HIGHWAY CONNECTIONS	Via N.W. North River Drive, asphalt, 58 feet wide.	Via N.W. North River Drive, asphalt, 58 feet wide.			Via N.W. North River 58 feet wide.
WATER SUPPLY (For Vessels)	None.	Through 3/4-inch line.			Through 1 1/2 inch li
ELECTRIC CURRENT (For Vessels)	None.	A.C., 110/220 volts.			None.
FIRE PROTECTION (Other Than City)	Hydrant and hand extinguishers.	Hydrant and hand extinguishers.			Hydrant and hand exti
REMARKS	At time of survey (1989), facility was under construction and details of additional handling equipment were not available. Plans called for a steel frame metal-covered storage building with capacity for 3,000 to 4,000 tons of scrap metal to be erected at rear.	-			-

S OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 575	14326 Dock Code No. 594	14326 Dock Code No. 601	
RENCE NUMBER ON MAP NO. 2	58	59	60	
	West River Terminals Wharf.	Carib Ocean Shipping, River Marine Terminal Wharf.	Southern & Caribbean Agencies, Air-Marine Terminal Wharf.	
CATION ON WATERFRONT	South side, Miami Canal, above CSX Rail Transport Bridge. 3975 N.W. South River Drive.	South side, Miami Canal, below CSX Rail Transport Bridge. 3795 N.W. South River Drive.	South side, Miami Canal, approximately 1,800 feet below CSX Rail Transport Bridge. 3611 N.W. South River Drive.	
D BY	River Properties, Inc.	Global Investment Properties, Inc.	Ship and Shore Supply.	
RATED BY	West River Terminals, Inc.	Carib Ocean Shipping, Inc.	Southern & Caribbean Agencies, Inc.	
OSE FOR WHICH USED	Receipt and shipment of general cargo.	Receipt and shipment of containerized, conventional, and roll-on, roll-off general cargo in foreign and domestic trade; mooring vessels.	Receipt and shipment of containerized and conventional general cargo in foreign and domestic trade.	
E OF CONSTRUCTION	Concrete bulkhead with part asphalt-surfaced solid fill.	Part concrete-capped steel sheet pile-, part timber-bulkhead, with concrete-surfaced solid fill and part concrete-capped coral bank.	Concrete-capped steel sheet pile bulkhead with part concrete-, part asphalt-surfaced solid fill.	
CRIPTION	Face	Face	Face	
ensions (Feet)	205	250+800	1,019	
h Alongside at MLW Do.	11	13	15	
ting Distance Do.	205	250+800	1,019	
l Berthing Space Do.	205	250+800	1,019	
h of Apron Do.	Open.	Open.	Open.	
ht of Deck at MLW Do.	5	5	5	
d Capacity (Lbs. per Sq. Ft.)	-	-	-	
hted or Unlighted	Lighted.	Lighted.	Lighted.	
SIT SHEDS ber and Description	None.	One - steel frame, metal-covered; concrete floor.	Two - concrete frame, walls and floor.	
			Transit shed	CFS*
gth and Width (Feet)		110 by 90	300 by 100	350 by 150
ght Inside Do.		30	22	22
or Area for Cargo (Sq. Ft.)		7,500 net.	30,000	48,000
d Capacity (Lbs. per Sq. Ft.)		750	1,000	1,000
go Doors		Upper side: one 20 by 12.	Shipside: Three 20 by 22.	28 truck bays.
ANICAL HANDLING FACILITIES	None.	Two 20-, two 4-, and two 2 1/2-ton, diesel forklift trucks. Additional rental equipment is available as required.	One 130-, and one 65-ton, diesel mobile cranes with 100- and 150-foot booms, respectively; two 43-ton container lift trucks; and one, each, 26-, 25-, and 22 1/2- and fifteen 1- to 4-ton diesel forklift trucks.	
LWAY CONNECTIONS	None.	One surface track extending to apron connects with CSX Rail Transport.	None.	
AY CONNECTIONS	Via N.W. North River Drive, asphalt, 50 feet wide.	Via N.W. North River Drive, asphalt, 50 feet wide.	Via N.W. South River Drive, asphalt, 25 feet wide.	
R SUPPLY (For Vessels)	Through 3-inch line.	Through 2-inch line.	Through 2-inch line.	
CTRIC CURRENT (For Vessels)	A.C., 110/220 volts.	A. C., 110/220 volts.	A. C., 110/220 volts.	
PROTECTION er Than City)	Hand extinguishers.	Hydrants, pumps, hose, hand extinguishers, and security patrol.	Hydrants, hose, hand extinguishers, and security patrol.	
ARKS	-	Approximately 3.2 acres of paved open storage area is located at rear.	Open storage area on opposite side of N.W. South River Drive has capacity for approximately 2,000 twenty-foot containers stacked 4-high. *At time of survey the container freight station described above was under construction adjacent to the open storage area.	

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 632		14325 Dock Code No. 632		14326 Dock C
REFERENCE NUMBER ON MAP NO. 2	61		62		63
NAME	Jones Boat Yard, Upper Wharf and Piers.		Jones Boat Yard, Lower Wharf and Slip.		Bernett's Mooring.
LOCATION ON WATERFRONT	South side, Miami Canal, below entrance to Palmer Lake. 3339 N.W. South River Drive.		South side, Miami Canal, approximately 700 feet below entrance to Palmer Lake. 3339 N.W. South River Drive.		South side, Miami Ca approximately 900 fe entrance to Palmer L 3369 N.W. South Rive
OWNED BY	Cleveland and Frank Jones.		Cleveland and Frank Jones.		L. Putzer.
OPERATED BY	Jones Boat Yard, Inc.		Jones Boat Yard, Inc		Carlo Bernett.
PURPOSE FOR WHICH USED	Mooring small vessels for repair, hauling out and drydocking; mooring floating drydock.		Mooring small vessels for repair, hauling out and drydocking; mooring floating drydock.		Mooring fishing boat
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with concrete-surfaced solid fill along Canal, and sides of rectangular slip partly covered by concrete structure. Five parallel, concrete pile, concrete-decked piers spaced 50 feet apart extend from inner end of slip under concrete structure.		Concrete-capped, steel sheet pile bulkhead with concrete-surfaced solid fill along Canal, sides of rectangular vertical boat lift slip and irregularly-shaped slip on lower side.		Coral bank with timbe timber-decked extensi
DESCRIPTION	Wharf and slip	Piers	Wharf	Slip	Face
Dimensions (Feet)	365&400x160	160 by 6, each	130+45	115+100+150	250
Depth Alongside at MLW Do.	10-12	10-12	10-12	14	12
Breasting Distance Do.	365&160	1,600 total	130+45	115 + drydock	250
Total Berthing Space Do.	365&160	1,600	130+45	115	250
Width of Apron Do.	Open.	6	10 & open.		Open.
Height of Deck at MLW Do.	5	6	6		5
Load Capacity (Lbs. per Sq. Ft.)	1,000	-	1,000		-
Lighted or Unlighted	Lighted.		Lighted.		Unlighted.
MECHANICAL HANDLING FACILITIES	Two 5-ton, diesel, mobile cranes, each with 30-foot boom; one 30-ton diesel, revolving crane with 80-foot boom mounted on 90- by 26-foot barge; and one 28-foot, diesel workboat "Mighty Mouse" equipped with 500 g.p.m. fire pump and one 60-ton diesel mobile vertical boat lift.		Use of cranes described under Ref. No. 61.		None.
RAILWAY CONNECTIONS	None.		None.		None.
HIGHWAY CONNECTIONS	Via N.W. South River Drive, asphalt, 25 feet wide.		Via N.W. South River Drive, asphalt, 25 feet wide.		Via N.W. South River D 25 feet wide.
WATER SUPPLY (For Vessels)	Through 1-inch line with 3/4-inch hose connections.		Through 1-inch line with 3/4-inch hose connections.		Through 3/4-inch line.
ELECTRIC CURRENT (For Vessels)	A. C., 110/220/440 volts.		A. C., 110/220/440 volts.		A. C., 110 volts.
FIRE PROTECTION (Other Than City)	Floating fire pump, hydrants, hose, hand extinguishers, and security patrol.		Floating fire pump, hydrants, hose, hand extinguishers, and security patrol.		Hand extinguishers.
REMARKS	A 60- by 22-foot rectangular slip for mobile vertical boat lift is built into open wharf near upper end. Approximately one acre of paved open storage area for small vessels is located at rear of wharf. A 300- by 165-foot concrete structure covers lower 250-foot portion of slip and upper portion of lower wharf, housing shipyard office and shops. A 1,600 ton floating drydock is moored at upper side of slip.		One 250-ton, vertical boat lift is located between 130- and 45-foot sections of wharf. Building covering upper portion of wharf is described under Ref. No. 61. Vessels can be transferred from 250-ton vertical boat lift via cradles and transverse tracks to 3 pairs of storage tracks at rear. A 1,600 ton floating drydock is moored along lower side of slip.		-

<table>
<tr><td>S OF ENGINEERS PORT CODE NO.</td><td colspan="2">14326 Dock Code No. 648</td><td colspan="3">14326 Dock Code No. 655</td><td>14326 Dock Code No. 655</td></tr>
<tr><td>ERENCE NUMBER ON MAP NO. 2</td><td colspan="2">64</td><td colspan="3">65</td><td>66</td></tr>
<tr><td>ME</td><td colspan="2">Byrd Diving & Salvage Wharf.</td><td colspan="3">Bay View Marine Terminal Wharf.</td><td>Bernuth Marine Shipping Dock No. 2.</td></tr>
<tr><td>ATION ON WATERFRONT</td><td colspan="2">South side, Miami Canal, approximately 1,500 feet above confluence with Tamiami Canal 3345 N.W. South River Drive.</td><td colspan="3">South side, Miami Canal, approximately 1,200 feet above confluence with Tamiami Canal 3301 N.W. South River Drive.</td><td>South side, Miami Canal, approximately 1,100 feet above entrance to Tamiami Canal. 3339 N.W. South River Drive.</td></tr>
<tr><td>D BY</td><td colspan="2">Byrd Diving & Salvage, Inc.</td><td colspan="3">Sheldon Perl.</td><td>C. Madden and D. Myers.</td></tr>
<tr><td>RATED BY</td><td colspan="2">Byrd Diving & Salvage, Inc.</td><td colspan="3">Bay View Marine Terminal, Inc.</td><td>Bernuth Marine Shipping, Inc.</td></tr>
<tr><td>POSE FOR WHICH USED</td><td colspan="2">Mooring company-owned floating equipment; handling supplies and equipment.</td><td colspan="3">Receipt and shipment of conventional general cargo in foreign trade; occasional receipt of lumber; mooring and repairing company-owned floating equipment.</td><td>Receipt and shipment of containerized general cargo in foreign trade.</td></tr>
<tr><td>E OF CONSTRUCTION</td><td colspan="2">Steel pile supported concrete bulkhead with concrete-surfaced solid fill; fronted by rubber tire fenders.</td><td colspan="3">Part concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; part concrete-capped coral bank fronted by steel piles supporting concrete stringers.</td><td>Vertically cut coral bank, fronted by timber pile, timber-decked extension.</td></tr>
<tr><td>CRIPTION</td><td colspan="2">Face</td><td colspan="3">Face</td><td>Face</td></tr>
<tr><td>ensions (Feet)</td><td colspan="2">100</td><td colspan="3">225+174</td><td>385</td></tr>
<tr><td>th Alongside at MLW Do.</td><td colspan="2">10</td><td colspan="3">14</td><td>10-14</td></tr>
<tr><td>sting Distance Do.</td><td colspan="2">100</td><td colspan="3">400</td><td>385</td></tr>
<tr><td>l Berthing Space Do.</td><td colspan="2">100</td><td colspan="3">400</td><td>385</td></tr>
<tr><td>th of Apron Do.</td><td colspan="2">Open.</td><td colspan="3">Open & 30.</td><td>Open.</td></tr>
<tr><td>ght of Deck at MLW Do.</td><td colspan="2">8</td><td colspan="3">5</td><td>5</td></tr>
<tr><td>d Capacity (Lbs. per Sq. Ft.)</td><td colspan="2">-</td><td colspan="3">Unlimited.</td><td>-</td></tr>
<tr><td>ghted or Unlighted</td><td colspan="2">Lighted.</td><td colspan="3">Lighted.</td><td>Lighted.</td></tr>
<tr><td>SIT SHEDS
ber and Description</td><td colspan="2">None.</td><td colspan="3">Three - concrete frame, masonry walls; one - steel frame, metal siding; all concrete floors</td><td>None.</td></tr>
<tr><td></td><td colspan="2"></td><td>Two upper</td><td>Center</td><td>Lower</td><td></td></tr>
<tr><td>ngth and Width (Feet)</td><td colspan="2"></td><td>80&50x40, ea.</td><td>90x80</td><td>190x60&100</td><td></td></tr>
<tr><td>ght Inside Do.</td><td colspan="2"></td><td>16</td><td>12-16</td><td>22</td><td></td></tr>
<tr><td>oor Area for Cargo (Sq. Ft.)</td><td colspan="2"></td><td>25,000,total.</td><td></td><td></td><td></td></tr>
<tr><td>ad Capacity (Lbs. per Sq. Ft.)</td><td colspan="2"></td><td>Unlimited.</td><td></td><td></td><td></td></tr>
<tr><td>go Doors</td><td></td><td>Shipside:
Upper side:
Lower side:</td><td>1@ 13x13,
1@ 12x12,
1@ 13x10,
1@ 12x12.</td><td>2@ 12x12</td><td>1@20x16,
1@ 12x12.
1@ 20x16.</td><td></td></tr>
<tr><td>HANICAL HANDLING FACILITIES</td><td colspan="2">Two 50-ton, diesel, mobile cranes: one with 60- to 120-foot boom, one with 90-foot boom and one 7 1/2-ton, diesel, front end loader.</td><td colspan="3">Three 2 ton, diesel forklift trucks.</td><td>One 150-ton diesel crawler crane with 100-foot boom, and one 30- and one 2- 1/2 ton, diesel forklift trucks.</td></tr>
<tr><td>LWAY CONNECTIONS</td><td colspan="2">None.</td><td colspan="3">None.</td><td>None.</td></tr>
<tr><td>HWAY CONNECTIONS</td><td colspan="2">Via N.W. South River Drive, asphalt, 25 feet wide.</td><td colspan="3">Via N.W. South River Drive, asphalt, 25 feet wide.</td><td>Via N.W. South River Drive, asphalt, 25 feet wide.</td></tr>
<tr><td>ER SUPPLY (For Vessels)</td><td colspan="2">Through 2-inch line.</td><td colspan="3">Through 1 1/2 inch line.</td><td>Through 1 1/2 inch line.</td></tr>
<tr><td>CTRIC CURRENT (For Vessels)</td><td colspan="2">A.C., 110/220 volts.</td><td colspan="3">A.C., 110/220 volts</td><td>A.C., 110/220 volts.</td></tr>
<tr><td>RE PROTECTION
her Than City)</td><td colspan="2">Water line, hydrants, hand extinguishers, and fire pump on boat.</td><td colspan="3">Hand extinguishers, hose stations, water line, and security patrol.</td><td>Hand extinguishers, water line, and security patrol.</td></tr>
<tr><td>ARKS</td><td colspan="2">Office and storage yard of salvage company are located at rear.</td><td colspan="3">-</td><td>Open storage area at rear has storage capacity for approximately 200 containers stacked up to 4-high.</td></tr>
</table>

PIERS, WHARVES, AND DOCKS

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 657	14326 Dock Code No. 665		14326 Dock Code No.
REFERENCE NUMBER ON MAP NO. 2	67	68		69
NAME	Universal Shipping Agency Wharf.	Bernuth Marine Shipping Dock No. 1.		Star Marine Terminal Wharf.
LOCATION ON WATERFRONT	South side, Miami Canal, approximately 800 feet above entrance to Tamiami Canal. 3201 N.W. South River Drive.	South side, Miami Canal, above entrance to Tamiami Canal. 3163 N.W. South River Drive.		Right bank, Miami River, belo entrance to Tamiami Canal. 3001 N.W. South River Drive.
OWNED BY	Louis Secondino.	Bernuth Agencies, Inc.		Elmore Daniels.
OPERATED BY	Universal Shipping Agency and Tropical Trading Corp.	Bernuth Marine Shipping, Inc.		Star Marine Terminal, Inc.
PURPOSE FOR WHICH USED	Receipt and shipment of containerized and conventional general cargo in foreign trade.	Receipt and shipment of containerized and conventional general cargo in foreign and domestic trades; maintenance and repair of company- owned floating equipment.		Receipt and shipment of conve general cargo in foreign and domestic trades.
TYPE OF CONSTRUCTION	Steel sheet pile bulkhead with asphalt-surfaced solid fill.	Part conurete-capped steel sheet pile bulkhead with asphalt-surfaced solid fill and part vertically cut, part natural coral bank.		Part concrete bulkhead with fill; part natural bank.
DESCRIPTION	Face	Face		Face
Dimensions (Feet)	280	200+340		135+285
Depth Alongside at MLW Do.	11	10-14		10-12
Breasting Distance Do.	280	540		420
Total Berthing Space Do.	280	540		420
Width of Apron Do.	Open & 18.	46.5 & open.		Open.
Height of Deck at MLW Do.	5	6-7		5
Load Capacity (Lbs. per Sq. Ft.)	-	Unlimited.		-
Lighted or Unlighted	Lighted.	Lighted.		Lighted.
CONTAINER FREIGHT STATIONS Number and Description	One - steel frame metal-covered, concrete floor.	Two - clear span, steel frame, concrete block walls; concrete floors.		One - steel frame, metal-co concrete floor.
		Upper shed	Lower shed	
Length and Width (Feet)	100 by 100	140 by 87	100 by 85	100 by 40
Height Inside Do.	22	18	18	15-18
Floor Area for Cargo (Sq. Ft.)	7,500, net.	11,500, net.	8,400, net.	3,000 net.
Load Capacity (Lbs. per Sq. Ft.)	-	Unlimited.	Unlimited.	Unlimited.
Cargo Doors	Five 15- by 20.	Upper shed: shipside: two, 18 by 16; each end; one, 26 by 16. Lower shed: shipside; two, 18 by 16; upper end; one, 25 by 16.		Lower side: one 19 by 18.
MECHANICAL HANDLING FACILITIES	One 4-, one 2-, and one 1 1/2- ton, diesel forklift trucks.	One 65-ton, diesel, mobile crane with 80-foot boom; one 25- ton diesel-, and fifteen 2 1/2-ton, gasoline forklift trucks.		One 10- and two 5-ton diese forklift trucks.
RAILWAY CONNECTIONS	None.	None.		None.
HIGHWAY CONNECTIONS	Via N.W. South River Drive, asphalt, 25 feet wide.	Via N.W. South River Drive, asphalt, 25 feet wide.		Via N.W. 20th Street, asph feet wide, from N.W. South Drive, asphalt, 25 feet wi
WATER SUPPLY (For Vessels)	Through 3/4 inch line.	Through 3/4-inch connections from well.		Through 3/4-inch line.
ELECTRIC CURRENT (For Vessels)	A.C., 110/220 volts.	A.C., 110 volts.		A.C., 100/220 colts.
FIRE PROTECTION (Other Than City)	Hand extinguishers.	Hand extinguishers and security patrol.		Hand extinguishers and che carts.
REMARKS	-	Transit sheds are used as container freight stations. Open storage area has capacity for approximately 200 twenty-foot containers stacked 3-high. Marine Diesel, Inc. marine repair plant is located at rear on opposite side of N.W. South River Drive, on left bank of Tamiami Canal.		A 100- by 40-foot building at rear of wharf is used storage. Transit shed is container freight station required. Open storage a has capacity for approxim twenty-foot containers, s 3-high.

OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 725		14326 Dock Code No. 735			14326 Dock Code No. 740		
ENCE NUMBER ON MAP NO. 2	70		71			72		
	Florida Yacht Basin Slip and Wharf.		Key Power, Slip.			Mesa Marine Repairs Slips.		
TION ON WATERFRONT	Right bank, Miami River, approximately 900 feet above N. W. 22d Avenue Bridge. 1565 N.W. 24th Avenue.		Right bank, Miami River, approximately 700 feet above N.W. 22d Avenue Highway Bridge. 2277 N.W. 14th Street.			Right bank, Miami River, above N.W. 22d Avenue Bridge. 2215 N.W. 14th Street.		
BY	Florida Yacht Basin.		Key Power, Inc			The Coastal Corp.		
ATED BY	The Moorings Yacht Services.		Key Power, Inc.			Mesa Marine Repairs, Inc.		
OSE FOR WHICH USED	Mooring small vessels for repair.		Mooring vessels for repair.			Mooring vessels for repair.		
OF CONSTRUCTION	Concrete retaining walls with solid fill forming rectangular slip and wharf; a 300- by 6-foot, concrete pile concrete-decked pier divides slip; a vertical boat lift slip separates wharf into two sections.		Rectangular slip formed by concrete retaining walls with asphalt-surfaced solid fill; fronted by timber fender piles.			Upper slip, intervening wharf face, and outer portion, upper side of lower slip: steel sheet pile bulkhead with solid fill. Lower slip: head and inner 280-foot portion of upper side - concrete bulkhead with concrete-surfaced solid fill; lower side, natural bank, all sides are fronted by timber breasting piles.		
RIPTION	Upper side	Wharf	Upper side	Head of slip	Lower side	Upper slip	Wharf	Lower slip
nsions (Feet)	350-300x100	30+50	250	70	220	50-80 by 200	80	95 by 400
Alongside at MLW Do.	12	17	12	12	12	10-23	10	12-23
ting Distance Do.	1,100 w/pier.	120	250	70	250	440	80	550 approx.
l Berthing Space Do.	1,100	120	250	70	250	440	80	550 approx.
of Apron Do.	30 and open.	Open.	Open.			10-15, 60-73	56-80, open.	12 & open.
ht of Deck at MLW Do.	5		6			6		
Capacity (Lbs. per Sq. Ft.)	–		–			–		
ted or Unlighted	Lighted.		Lighted.			Lighted.		
ANICAL HANDLING FACILITIES	Rental equipment is available as required.		One 7-ton diesel forklift truck with 12-foot auxiliary hoist; and five additional 1- to 5-ton forklift trucks.			Rental equipment is available as required.		
ILWAY CONNECTIONS	None.		None.			None.		
HWAY CONNECTIONS	Via N.W. 16th Street Road, asphalt, 24 feet wide, from N.W. 27th Avenue, asphalt, 24 feet wide.		Via N.W. 14th Street, asphalt, 20 feet wide, from N.W. 22d Avenue, asphalt, dual lane.			Via N.W. 14th Street, asphalt, 20 feet wide, from N.W. 22d Avenue, asphalt, dual lane.		
R SUPPLY (For Vessels)	Through 3-inch line.		Through 2-inch line.			Through 1 1/4-inch lines with 3/4-inch hose connections.		
RIC CURRENT (For Vessels)	A.C., 125/220/440 volts.		A.C., 110/220 volts.			A.C., 110/220 volts.		
PROTECTION r Than City)	Hydrant, hand extinguishers, and security patrol.		Pumps, water line, hydrant, hose, hand extinguishers and sprinkler system in shops.			Pump, hose, chemical cart, hand extinguishers, and security patrol.		
RKS	One 100-ton vertical boat lift slip is built into face of wharf. Three additional basins, all under cover on upper side, provide approximately 4,500 lineal feet of mooring space with depths of 12 feet for recreational vessels.		Marine repair plant specializing in servicing marine gear, transmissions and diesel engines is located in rear.			One 1,000-ton, marine railway is located at head of upper slip, and has capability of transferring vessels to either side. Facility has floating oil spill containment curtains, fresh air breathing suits, diving gear, gas-freeing facility, and 3 slop tanks, total capacity 22,000 gallons. A 22-foot wide slip for mobile boat hoist formed by a 60- by 10-foot concrete pile, concrete-decked pier extending from head of lower slip was not in use at time of survey.		

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 823			14326 Dock Code No. 830		14326 Dock Code No.
REFERENCE NUMBER ON MAP NO. 2	73			74		75
NAME	Merrill-Stevens Dry Dock Co., South Yard No. 1, Wharf and Boat Basin.			Howard Backus Towing, Wharf and Slip.		Dade County Marine Patrol Bo Wharf.
LOCATION ON WATERFRONT	Right bank Miami River, approximately 300 feet above N.W. 12th Avenue Bridge. 881 N.W. 13th Avenue.			Right bank, Miami River, above N.W. 12th Avenue Bridge. 1201 N.W. South River Drive.		Right bank, Miami River, bel 12th Avenue Bridge. 1151 N.W. South River Drive.
OWNED BY	Merrill-Stevens Dry Dock Co.			Howard W. Backus.		Dade County Marine Patrol, F Safety Department.
OPERATED BY	Merrill-Stevens Dry Dock Co			Howard Backus Towing, Inc.		Dade County Marine Patrol, F Safety Department.
PURPOSE FOR WHICH USED	Mooring vessels.			Mooring company-owned harbor tugs for storage, maintenance, and repair.		Mooring marine patrol boats.
TYPE OF CONSTRUCTION	Concrete-capped steel sheet pile retaining walls with concrete-surfaced solid fill forming wharf and intervening rectangular slip. A concrete pile, concrete-decked pier extends from head of basin and supports the center wall of a 250- by 140-foot steel frame, metal-covered structure extending over slip.			Wharf and intervening rectangular slip formed by steel sheet pile retaining walls, partly with timber pile timber-decked extensions.		Concrete bulkhead with aspha surfaced solid fill; fronted timber pile, timber-decked a and a 14-foot square, concret concrete-decked platform cont 2 bollards.
DESCRIPTION		Basin				
	Wharf	Upper side	Lower side	Wharf	Slip	Face
Dimensions (Feet)	160 & 35	275 by 47	250 by 40	55 & 20	165-90 by 82	197
Depth Alongside at MLW Do.	11	15	15	14	10-15	13
Breasting Distance Do.	440 & 35	275	250	55 & 20	165-82 & 90	197
Total Berthing Space Do.	160 & 35	275	250	55 & 20	165-82 & 90	197
Width of Apron Do.	Open.	40 & 20	20 & 12	Open.		15
Height of Dock at MLW Do.	7.5			5		4
Load Capacity (Lbs. per Sq. Ft.)	-			-		30
Lighted or Unlighted	Lighted.			Lighted.		Unlighted.
MECHANICAL HANDLING FACILITIES	Rental equipment is available as required.			One hand-operated mast and boom derrick with 10-foot boom. Additional rental equipment is available as required.		None.
RAILWAY CONNECTIONS	None.			None.		None.
HIGHWAY CONNECTIONS	Via N.W. 13th Avenue, asphalt, 20 feet wide, from N.W. 12th Court, asphalt, 32 feet wide, from N.W. 7th street, asphalt, 58 feet wide.			Via N.W. South River Dr. asphalt, 20 feet wide, from N.W. 12th Court, asphalt, 32 feet wide, from N.W. 7th Street, asphalt, 58 feet wide.		Via N.W. South River Drive, 40 feet wide.
WATER SUPPLY (For Vessels)	Through 2-inch lines with 3/4-inch connections.			Through 3/4-inch hose line.		Through 3/4-inch hose conne
ELECTRIC CURRENT (For Vessels)	A.C., 110/220/440 volts.			A.C., 110 volts.		A.C., 110 volts.
FIRE PROTECTION (Other Than City)	Water line, sprinkler system, and hand extinguishers.			Hose and hand extinguishers.		Hand extinguishers.
REMARKS	Main yard of Merrill-Stevens Dry Dock Co. (Ref. Nos. 39 through 44) is located directly across the river.			Dispatch office is located in building at rear.		Marine Patrol Office is loca building at rear.

ORPS OF ENGINEERS PORT CODE NO.	14325 Dock Code No. 864			14326 Dock Code No. 870	14326 Dock Code No. 983
EFERENCE NUMBER ON MAP NO. 2	76			77	78
AME	Trujillo Ship Services, Marine Cargo Terminal Wharf.			Norseman Shipbuilding Corp. Wharf.	Riverside Shipping, Wharf.
OCATION ON WATERFRONT	Right bank, Miami River, approximately 1,000 feet above the N.W. 5th Street Bridge. 555 N.W. South River Drive.			Right bank, Miami River, approximately 500 feet above N.W. 5th Street Bridge. 437 N.W. South River Drive.	Right bank, Miami River, below N.W. 5th Street Bridge. 377 N.W. South River Drive.
NED BY	Trujillo & Sons, Inc.			Estate of Peter John Sanders.	Marilyn Properties, Inc.
PERATED BY	Trujillo Ship Services, Inc.			Norseman Shipbuilding Corp.	Riverside Shipping, Inc.
URPOSE FOR WHICH USED	Receipt and shipment of conventional general cargo in foreign and domestic trade.			Mooring small vessels for outfitting and repair.	Receipt and shipment of conventional general cargo in foreign and domestic trade.
YPE OF CONSTRUCTION	Part concrete- and part steel sheet pile retaining walls with asphalt-surfaced solid fill forming wharf with 2 intervening rectangular slips.			Steel sheet pile bulkhead with solid fill; fronted by 6- and 7-foot wide, timber pile, timber-decked extensions.	Steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by timber pile fender system.
ESCRIPTION	Wharf	Upper Slip	Lower Slip	Face	Face
imensions (Feet)	30+25+235	80 by 45	65 by 100	120 and 30	230 + 80
epth Alongside at MLW Do.	15	15	15	8	10
reasting Distance Do.	30+25+235	80	100	120 and 30	230 + 80
otal Berthing Space Do.	435, slips	80	100	120 and 30	230 + 80
idth of Apron Do.	Open.			Open.	1-16, 30 & open.
eight of Deck at MLW Do.	5			4	4 & 6
oad Capacity (Lbs. per Sq. Ft.)	-			-	-
ighted or Unlighted	Lighted.			Unlighted.	Partly lighted.
RANSIT SHEDS umber and Description	One - concrete block walls, concrete floor.			None.	None.
ength and Width (Feet)	150 by 40				
eight Inside Do.	18				
loor Area for Cargo (Sq. Ft.)	4,500				
oad Capacity (Lbs. per Sq. Ft.)	-				
argo Doors	Three, various sizes.				
ECHANICAL HANDLING FACILITIES	One 2 1/2-ton diesel- and one 2-ton LP-gas forklift trucks.			Rental equipment is available as required.	Rental equipment is available as required.
AILWAY CONNECTIONS	None.			None.	None.
GHWAY CONNECTIONS	Via N.W. South River Drive, asphalt, 40 feet wide.			Via N.W. South River Drive, asphalt, 49 feet wide.	Via N.W. South River Drive, asphalt 49 feet wide.
ATER SUPPLY (For Vessels)	Through 3/4-inch line.			Through 1-inch line with 3/4-inch connections.	Through 1-inch line with 3/4-inch connections.
ECTRIC CURRENT (For Vessels)	A.C., 110/220 volts.			A.C., 110/220 volts.	A.C., 110/220 volts.
RE PROTECTION ther Than City)	Hand extinguishers.			Hose, hand extinguishers, and security patrol.	Hose and hand extinguishers.
MARKS	-			A 70-ton vertical boat lift is located at lower end of wharf. One concrete, high-bay building at rear of wharf contains marine repair shops and small vessel construction facilities.	-

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 123	14326 Dock Code No. 890		14326 Dock Code No. 900		
REFERENCE NUMBER ON MAP NO. 2	79	80		81		
NAME	National Fisheries, Upper Wharf.	National Fisheries, Lower Wharf.		Bimini Boatyard of Miami Wharf.		
LOCATION ON WATERFRONT	Right bank, Miami River, approximately 400 feet below N.W. 5th Street Bridge. 341 N.W. South River Drive.	Right bank, Miami River, approximately 800 feet below N.W. 5th Street Bridge. 311 N.W. South River Drive.		Right bank, Miami River, approximately 700 feet above N. Flagler Street Bridge. 151 N.W. South River Drive.		
OWNED BY	Marilyn Properties, Inc.	Upper section: Ane Corp; lower section: Aaron Weiss, Martha Felik, and Arthur J. Katz.		Captain Wallace G. Kreidt.		
OPERATED BY	National Fisheries, Inc.	National Fisheries, Inc.		Bimini Boatyard of Miami, Inc.		
PURPOSE FOR WHICH USED	Receipt of seafood; mooring fishing boats.	Receipt of seafood; mooring, icing, and repairing fishing boats; handling bait and fishing gear.		Mooring vessels for repair and sale.		
TYPE OF CONSTRUCTION	Concrete bulkhead with solid fill forming building foundation, lower portion fronted by 4-foot wide, timber pile, timber-decked extension and upper portion by 2- to 5-foot wide, concrete pile, concrete-decked extension; all fronted by timber pile fenders.	Upper section: concrete bulkhead with solid fill, partly fronted by timber pile 4-foot wide, timber-decked extension; lower section: steel sheet pile bulkhead with solid fill.		L-shaped, timber pile, timber- pier; row of timber piles off side forms boat stalls.		
DESCRIPTION	Face	Upper section	Lower section	Face	Upper side	Lowe
Dimensions (Feet)	175	100 + 108	45+10+105+63	45	190	123
Depth Alongside at MLW Do.	8	4-5	4	12	12	12
Breasting Distance Do.	175	248	223	45	190	123
Total Berthing Space Do.	175	248	223	65	13, stalls	123
Width of Apron Do.	2-5	4-5 & open.	4-5 and open.	8	5	5
Height of Deck at MLW Do.	3 and 5	3	4	5-6		
Load Capacity (Lbs. per Sq. Ft.)	-	-		-		
Lighted or Unlighted	Unlighted.	Lighted.		Lighted.		
MECHANICAL HANDLING FACILITIES	One 1-ton, electric hoist on monorail.	One 1-ton, electric hoist on monorail.		Two 1-ton, hand-operated mast- boom derricks, each with 25-fo boom for engine installation removal.		
RAILWAY CONNECTIONS	None.	None.		None.		
HIGHWAY CONNECTIONS	Via N.W. South River Drive, asphalt 49 feet wide.	Via N.W. South River Drive, asphalt, 40 feet wide.		Via N.W. South River Drive, as 40 feet wide.		
WATER SUPPLY (For Vessels)	Through 1- and 1/2-inch lines.	Through hose from buildings at rear.		Through 1-inch line with 3/4- hose connection.		
ELECTRIC CURRENT (For Vessels)	A.C., 110 volts.	A.C., 110/220 volts.		A.C., 110/220 volts.		
FIRE PROTECTION (Other Than City)	Hoses and hand extinguishers.	Hand extinguishers, hose, and water line.		Hand extinguishers, hose, and security patrol.		
REMARKS	Buildings at rear contain seafood-processing, packaging, freezing and cold storage facilities.	An unused 15-foot wide boat slip and adjacent 27-foot wide loading ramp are located between portions of upper section. Buildings in rear contain seafood-processing, packing, freezing and cold storage facilities.		One 50-ton marine railway is above pier. Marine repair pla shops are located at rear.		

S OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 913	14326 Dock Code No. 917	14326 Dock Code No. 925
RENCE NUMBER ON MAP NO. 2	92	93	94
	Captain Wallace G. Kreidt Dock.	Bahamas International Co. Wharf.	Florida Carib Fishery Wharf.
TION ON WATERFRONT	Right bank, Miami River, approximately 600 feet above West Flagler Street Bridge. 127 N.W. South River Drive.	Right bank, Miami River, above West Flagler Street Bridge. 31 N.W. South River Drive.	Right bank, Miami River, above S.W. 1st Street Bridge 25 N.W. South River Drive.
D BY	Captain Wallace G. Kreidt.	Bahamas International Co., Ltd.	Florida Carib Fishery, Inc.
ATED BY	Various lessees.	Bahamas International Co., Ltd.	Florida Carib Fishery, Inc.
SE FOR WHICH USED	Receipt of seafood; mooring vessels.	Receipt and shipment of containerized and conventional general cargo in foreign trade.	Receipt of seafood; mooring fishing boats; handling supplies.
OF CONSTRUCTION	Concrete bulkhead with concrete-surfaced solid fill; fronted by timber fender system.	Part concrete- and part concrete-capped steel sheet pile- bulkhead with asphalt-surfaced solid fill.	Timber pile, timber-decked wharf.
IPTION	Face	Face	Face
sions (Feet)	210	70+20+60+120	50 + 175
Alongside at MLW Do.	10-12	15	6
ing Distance Do.	210	70+60+120	225
Berthing Space Do.	210	200	225
of Apron Do.	Open.	Open.	8
of Deck at MLW Do.	6	6	4.5
pacity (Lbs. per Sq. Ft.)	-	-	-
d or Unlighted	Lighted.	Lighted.	Lighted.
ICAL HANDLING FACILITIES	None.	One 52 1/2 ton diesel mobile crane with 100-foot boom.	One 1/2-ton electric hoist on monorail.
CONNECTIONS	None.	None.	None.
CONNECTIONS	Via N.W. South River Drive, asphalt, 40 feet wide.	Via N.W. South River Drive, asphalt 40 feet wide.	Via N.W. South River Drive, asphalt 46 feet wide.
UPPLY (For Vessels)	Through 3/4-inch line.	Through 3/4-inch line.	None.
C CURRENT (For Vessels)	A.C., 110 volts.	A.C., 110 volts.	A.C., 110 volts.
OTECTION Than City)	Hand extinguishers and hose.	Hand extinguishers, water line, and hose.	Hand extinguishers.
	At time of survey, one building at rear was being used for processing, packing and freezing seafood and another building with similar facilities was vacant.	-	A 2-story seafood-processing plant is located at rear.

CORPS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 953			14326 Dock Code No. 965	14326 Dock Code No.
REFERENCE NUMBER ON MAP NO. 2	85			86	87
NAME	Miami Shipyards Corp. Wharf.			Dawson Marine Service Wharf.	Diesel Engine & Clutch Repair
LOCATION ON WATERFRONT	Right bank, Miami River, below S.W. 2d Avenue Bridge. 615 S.W. 2d Avenue.			Right bank, Miami River, approximately 200 feet west of South Miami Avenue Bridge. 55 S.W. Miami Avenue Road.	Right bank, Miami River, approximately 440 feet below Miami Avenue Bridge. 27 S.E. 5th Street.
OWNED BY	Miami Shipyards Corp.			Estate of Mary Brickell Laws.	Estate of Peter John Sanders.
OPERATED BY	Miami Shipyards Corp: and Miami Ship Services, Inc.			Dawson Marine Service, Inc.	Diesel Engine & Clutch Repair,
PURPOSE FOR WHICH USED	Mooring vessels for outfitting and repair; receipt and shipment of containerized and conventional general cargo in foreign trade.			Fueling small vessels; handling supplies.	Not used.
TYPE OF CONSTRUCTION	Upper section: concrete pile, concrete-decked wharf fronting masonry bulkhead with asphalt-surfaced solid fill; center section: steel sheet pile bulkhead with asphalt-surfaced solid fill; lower section: concrete bulkhead with solid fill.			Concrete bulkhead with concrete-surfaced solid fill, fronted by timber fender system.	Concrete-capped, steel sheet bulkhead with solid fill.
DESCRIPTION	Upper section	Center section	Lower section	Face	Face
Dimensions (Feet)	218	64	25	160	112
Depth Alongside at MLW Do.	12	12	12	6-8	9
Breasting Distance Do.	218	64	25	160	112
Total Berthing Space Do.	218	64	25	190	112
Width of Apron Do.	50-54, open.	20-27, open.	Open.	6, 12, and open.	56
Height of Deck at MLW Do.	6	5	5	5	5
Load Capacity (Lbs. per Sq. Ft.)	-			-	-
Lighted or Unlighted	Lighted.			Lighted.	Lighted.
MECHANICAL HANDLING FACILITIES	Two 15-ton diesel mobile cranes each with 60-foot telescopic boom; one 6 1/2 - and five 1 3/4-ton gasoline forklift trucks.			None.	None.
RAILWAY CONNECTIONS	None.			None.	None.
HIGHWAY CONNECTIONS	Via private entrance from S.W. 2d Avenue asphalt, 30 feet wide.			Via S.W. Miami Avenue Road, asphalt, 40 feet wide, from South Miami Avenue.	Via S.E. 5th Street, asphalt, feet wide from South Miami Av asphalt, 36 feet wide.
WATER SUPPLY (For Vessels)	Through 1- and 2-inch lines with 3/4- and 1 1/2-inch connections.			Through 3/4-inch line.	None.
ELECTRIC CURRENT (For Vessels)	A.C., 110/220/440 volts; D.C., 100/220 volts.			None.	A.C., 110/220 volts.
FIRE PROTECTION (Other Than City)	Hand extinguishers, hose, hydrants and security patrol.			Hand extinguishers and chemical cart.	Hydrant, hose and hand extinguishers.
REMARKS	One 100-, one 250- and one 700-ton marine railways are located between upper and center sections. A 70- by 19-foot boat slip is located between center and lower sections. Marine repair plant located in buildings in rear; ground floor of shop building, approximately 4,000 square feet, is used for storage of cargo in transit.			Five metered pumps on wharf are supplied by one gasoline, and one diesel fuel, underground storage tanks, total capacity 8,000 gallons.	A marine repair plant is loc 310- by 103-foot building in

PS OF ENGINEERS PORT CODE NO.	14326 Dock Code No. 91		
ERENCE NUMBER ON MAP NO. 2	86		
E	U. S. Customs Service Southeast Region Wharf.		
ATION ON WATERFRONT	Right bank, Miami River, approximately 250 feet above S.E. 2d Avenue Bridge. 77 S.E. 5th Street.		
ED BY	Rivergate Plaza.		
RATED BY	U. S. Customs Service, Southeast Region, Tactic Enforcement Division.		
POSE FOR WHICH USED	Mooring U.S. Customs patrol boats.		
E OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with concrete-surfaced solid fill; fronted by timber fender system and 2-foot wide timber extension on lower side.		
CRIPTION	Face		
ensions (Feet)	125		
th Alongside at MLW Do.	12		
sting Distance Do.	125		
l Berthing Space Do.	125		
th of Apron Do.	30		
ght of Deck at MLW Do.	6		
Capacity (Lbs. per Sq. Ft.)	-		
ted or Unlighted	Lighted.		
ANICAL HANDLING FACILITIES	Two permanent, revolving, electrically-operated cranes, each with 12-foot boom, located on upper end of wharf.		
WAY CONNECTIONS	None.		
WAY CONNECTIONS	Via S.E. 5th Street, asphalt, 20 feet wide from Brickell Avenue, asphalt, dual lane, each side 24 feet wide.		
R SUPPLY (For Vessels)	Through 3/4-inch line.		
RIC CURRENT (For Vessels)	A.C., 110 volts.		
PROTECTION r Than City)	Hydrant and hand extinguishers.		
RES	U.S. Customs Service leases space in building at rear.		

OIL HANDLING AND BUNKERING

Only one waterfront facility at Miami receives petroleum products by water. Four others receive gasoline and diesel fuel by tank truck for marine fueling. Ocean-going vessels are usually bunkered at berth by tank truck or by bunkering barge. Coastal Tug and Barge, Inc. operates 14 tank barges, based at Miami, that are employed in bunkering as well as in transportation service. Statistical descriptions of this equipment are listed in the table of Floating Equipment on page 74.

The tabulation below summarizes the petroleum handling and commercial fueling facilities at Miami; complete details of each is given in the table of Piers, Wharves, and Docks beginning on page 25 under the reference number indicated. Fueling stations serving only recreational craft are not included.

P.W.D. REF. NO.	OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	STORAGE TANKS	
				NO.	CAPACITY (BARRELS)
34	Atco Marine Service, Inc.	243	6-8	3	238
3	Coastal Fuels Marketing, Inc.	800	36	12 3	667,190 1,200
86	Dawson Marine Service, Inc.	160	6-8	2	190
35	Garcia Service Station	35	6-7	3	285
10	Watson Island, Fuel & Fishing Supply	141	15	5	428

WAREHOUSES

Within Metropolitan Miami and Dade County, 12 companies operate warehouses having a total of 1,027,000 square feet of dry storage space, and 10,391,400 cubic feet of cooler and freezer space. All except two of the warehouses have railroad connections, and each is accessible to arterial highways. Diversified handling equipment is maintained by the operators, and special services are provided, including packing and crating, forwarding, pool car distribution, carloading, weighing, stamping, marking, fumigating, and blast freezing.

The summary on the next page lists the operators and gives the storage capacity of the dry and cold storage facilities which are more fully described under individual reference numbers in the table of Storage Warehouses, beginning on page 58. The locations of warehouses with reference numbers 1 and 2 are shown on the Port Facilities Map; the remainder are located outside the area covered by the map, and their locations are given only in the table of Storage Warehouses.

The operators listed represent largely the respondents to a mailed questionnaire as time restrictions precluded complete field gathering of information.

SUMMARY OF DRY AND COLD STORAGE WAREHOUSES

S.W. REF. NO.	OPERATOR	STORAGE AREA	
		DRY (SQ.FT.)	COLD (CU.FT.)
-	Atlantic Cold Storage Corp.	-	5,600(B)
		-	300,000(C)
		-	1,400,000(F)
-	Florida Plantation Storage Center	-	25,000(B)
		-	400,000(C)
		-	1,700,000(F)
-	Hamersmith, Inc.	220,000	-
-	International Distribution Center, Inc.	40,000	-
-	Miami Free Zone Corp.	76,000(B)	-
1	National Freezers, Inc.	-	1,300,000(X)
-	Natural Freezers, Inc.	-	75,000(C)
			1,400,000(F)
-	Seaboard Warehouse Terminals, Inc.	241,000	151,000(C)
-	Service Cold Storage, Inc.	-	115,000(C)
		-	230,000(F)
-	Smith Terminal Warehouse Co.	375,000	-
2	Storage Warehouse Co.	25,000	-
		50,000(B)	-
-	United States Cold Storage	-	2,000(B)
		-	600,200(C)
		-	2,687,600(F)
	TOTALS	1,027,000	10,391,400

(B) Bonded.
(C) Cooler.
(F) Freezer.
(X) Convertible.

STORAGE WAREHOUSES

WAREHOUSE REF. NO.	1		2	
OPERATOR AND ADDRESS	National Freezers, Inc. 1849 N.W. 1st Avenue Miami, FL 33136		Storage Warehouse Co. 601 S.W. 8th Street Miami, FL 33130	
LOCATION	Same as above.		Same as above.	
KIND OF STORAGE	Cold.		Dry.	
COMMODITIES USUALLY STORED	Perishable food commodities including seafood.		General merchandise and containerized commodities.	
DESCRIPTION				
Type of Construction	Concrete frame, concrete block walls; concrete floor.		Concrete frame, concrete block walls; concrete floor.	
Number of Floors	One.		Four.	
Clear Height for Storage (feet):				
First Floor....................	20		12	
Other Floors..................	-		12	
Load Capacity (Lbs/Sq.Ft.):				
First Floor....................	1,000		1,200	
Other Floors..................	-		400	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General Storage.......(Sq.Ft.)	-	-	25,000	-
U.S. Customs Bonded...(Sq.Ft.)	-	Available.	50,000	-
Cooler Space..........(Cu.Ft.)	-	-	-	-
Freezer Space.........(Cu.Ft.)	-	-	-	-
Convertible Space.....(Cu.Ft.)	-	1,300,000	-	-
RAILWAY CONNECTIONS	One 4-car capacity, platform-level track connects with Florida East Coast Railway.		None.	
TRUCKLOADING STATIONS	Twenty.		Fifteen.	
HANDLING EQUIPMENT	Eight 2-ton, electric, forklift trucks and four 2-ton, electric pallet jacks.		One 2 1/2- and one 1-ton forklift trucks; and one 9-ton elevator.	
FIRE PROTECTION	Automatic fire detection and sprinkler system, and hand extinguishers.		Automatic fire detection and sprinkler system, and hand extinguishers.	
REMARKS	Blast freeze facilities are located in warehouse. Direct ammonia expansion and circulating brine refrigeration systems. Temperature range, coolers, +35° to +40° F., freezers -10° to 0°F.		-	

STORAGE WAREHOUSES (Cont.)

<table>
<tr><td>WAREHOUSE REF. NO.</td><td colspan="2">OFF MAP</td><td colspan="2">OFF MAP</td></tr>
<tr><td>OPERATOR AND ADDRESS</td><td colspan="2">Atlantic Cold Storage Corp.
18770 N.E. 6th Avenue
Miami, FL 33179</td><td colspan="2">Florida Plantation Storage Center
2950 N.W. 75th Street
Miami, FL 33147</td></tr>
<tr><td>LOCATION</td><td colspan="2">Same as above.</td><td colspan="2">Same as above.</td></tr>
<tr><td>KIND OF STORAGE</td><td colspan="2">Cold and cooler.</td><td colspan="2">Cold.</td></tr>
<tr><td>COMMODITIES USUALLY STORED</td><td colspan="2">Perishable food commodities including seafood.</td><td colspan="2">Perishable food commodities including seafood.</td></tr>
<tr><td>DESCRIPTION
Type of Construction</td><td colspan="2">Concrete frame, concrete block walls; concrete floor.</td><td colspan="2">Concrete frame, walls and floor.</td></tr>
<tr><td>Number of Floors</td><td colspan="2">One.</td><td colspan="2">One.</td></tr>
<tr><td>Clear Height for Storage (feet):
First Floor...................</td><td colspan="2">25</td><td colspan="2">20</td></tr>
<tr><td>Other Floors..................</td><td colspan="2">-</td><td colspan="2">-</td></tr>
<tr><td>Load Capacity (Lbs/Sq.Ft.):
First Floor...................</td><td colspan="2">-</td><td colspan="2">Unlimited.</td></tr>
<tr><td>Other Floors..................</td><td colspan="2">-</td><td colspan="2">-</td></tr>
<tr><td>AREAS FOR PUBLIC STORAGE:</td><td>DRY STORAGE</td><td>COLD STORAGE</td><td>DRY STORAGE</td><td>COLD STORAGE</td></tr>
<tr><td>General Storage.......(Sq.Ft.)</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>U.S. Customs Bonded...(Sq.Ft.)</td><td>-</td><td>5,600</td><td>-</td><td>25,000</td></tr>
<tr><td>Cooler Space..........(Cu.Ft.)</td><td>-</td><td>300,000</td><td>-</td><td>400,000</td></tr>
<tr><td>Freezer Space.........(Cu.Ft.)</td><td>-</td><td>1,400,000</td><td>-</td><td>1,700,000</td></tr>
<tr><td>Convertible Space.....(Cu.Ft.)</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>RAILWAY CONNECTIONS</td><td colspan="2">One 2-car capacity, carfloor-level track connects with CSX Rail Transport.</td><td colspan="2">One 4-car capacity, carfloor-level track connects with Florida East Coast Railway.</td></tr>
<tr><td>TRUCKLOADING STATIONS</td><td colspan="2">18, Refrigerated.</td><td colspan="2">Thirty nine.</td></tr>
<tr><td>HANDLING EQUIPMENT</td><td colspan="2">Nine electric, forklift trucks, and three pallet jacks.</td><td colspan="2">Twenty 1- to 2-ton, electric, forklift trucks; fifteen 1- to 2-ton, electric pallet jacks.</td></tr>
<tr><td>FIRE PROTECTION</td><td colspan="2">Automatic fire detection and sprinkler system, and hand extinguishers.</td><td colspan="2">Automatic fire detection and sprinkler system, hand extinguishers, and watchmen.</td></tr>
<tr><td>REMARKS</td><td colspan="2">Blast freeze facilities, USDA meat inspection, and refrigerated loading platform. Circulating ammonia refrigeration system. Temperature range, coolers, 36° to 38°F, freezers to 0°F.</td><td colspan="2">Circulating ammonia refrigeration system. Temperature range, coolers, +32° to +40°F., freezers -5° to +8°F.</td></tr>
</table>

STORAGE WAREHOUSES (Cont.)

WAREHOUSE REF. NO.	OFF MAP		OFF MAP	
OPERATOR AND ADDRESS	Hamersmith, Inc. 3200 N.W. 125th Street Miami, FL 33167		International Distribution Center, Inc. 7301 N.W. 36th Court Miami, FL 33147	
BUILDING DESIGNATION/S	-		-	
LOCATION	Same as above.		Same as above.	
KIND OF STORAGE	Dry.		Dry.	
COMMODITIES USUALLY STORED	General merchandise.		General merchandise.	
DESCRIPTION Type of Construction	Masonry with concrete floor.		Concrete frame, concrete block walls; concrete floor.	
Number of Floors	One.		One.	
Clear Height for Storage (feet):				
First Floor..................	22		20	
Other Floors..................	-		-	
Load Capacity (Lbs/Sq.Ft.):				
First Floor..................	Unlimited.		1,000	
Other Floors..................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General Storage.......(Sq.Ft.)	220,000	-	40,000	-
U.S. Customs Bonded...(Sq.Ft.)	-	-	-	-
Cooler Space..........(Cu.Ft.)	-	-	-	-
Freezer Space.........(Cu.Ft.)	-	-	-	-
Convertible Space.....(Cu.Ft.)	-	-	-	-
RAILWAY CONNECTIONS	One 18-car capacity, platform-level track connects with CSX Rail Transport.		One 4-car capacity, carfloor-level track connects with Florida East Coast Railway.	
TRUCKLOADING STATIONS	Seventy.		Seven.	
HANDLING EQUIPMENT	Equipment available as required.		Four LP-gas forklift trucks to 2 1/2-ton capacity.	
FIRE PROTECTION	Automatic fire detection and sprinkler system.		Automatic fire detection and sprinkler system, hand extinguishers, and watchman service.	
REMARKS	-		US Customs Broker Service; FMC Licensed Foreign Freight Forwarder.	

STORAGE WAREHOUSES (Cont.)

WAREHOUSE REF. NO.	OFF MAP		OFF MAP	
OPERATOR AND ADDRESS	Miami Free Zone Corp. 2335 N.W. 107th Avenue Miami, FL 33172		National Freezers, Inc. 501 N.E. 183d Street Miami, FL 33179	
BUILDING DESIGNATION/S	MFZ Public Warehouse.		-	
LOCATION	Same as above.		-	
KIND OF STORAGE	Dry.		Cold.	
COMMODITIES USUALLY STORED	General merchandise.		Perishable food commodities including seafood.	
DESCRIPTION Type of Construction	Steel frame, concrete walls and floor.		Concrete frame, concrete block walls; concrete floor.	
Number of Floors	One.		One.	
Clear Height for Storage (feet):				
First Floor..................	22		20	
Other Floors..................	-		-	
Load Capacity (Lbs/Sq.Ft.):				
First Floor..................	330		-	
Other Floors..................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General Storage.......(Sq.Ft.)	-	-	-	-
U.S. Customs Bonded...(Sq.Ft.)	76,000	-	-	-
Cooler Space..........(Cu.Ft.)	-	-	-	75,000
Freezer Space.........(Cu.Ft.)	-	-	-	1,400,000
Convertible Space.....(Cu.Ft.)	-	-	-	-
RAILWAY CONNECTIONS	None.		One 7-car capacity, carfloor-level track connects with CSX Rail Transport.	
TRUCKLOADING STATIONS	Nine.		Twenty nine.	
HANDLING EQUIPMENT	One 4- and eight 1 1/2-ton electric forklift trucks.		Forklift trucks and pallet jacks are available.	
FIRE PROTECTION	Automatic fire detection and sprinkler system and security patrol.		Automatic fire detection and sprinkler system.	
REMARKS	Warehouse has Foreign Trade Zone status and all general cargo is customs bonded. Container Freight Station.		Circulating ammonia refrigeration system in freezer portion, temperature range -15° to 0°F. and freon system in cooler portion, temperature range, +32° to +36°F.	

STORAGE WAREHOUSES (Cont.)

WAREHOUSE REF. NO.	OFF MAP		OFF MAP	
OPERATOR AND ADDRESS	Seaboard Warehouse Terminals, Inc. 3455 N.W. 54th Street Miami, FL 33142		Service Cold Storage, Inc. 590 N.E. 185th Street Miami, FL 33179	
LOCATION	-		-	
KIND OF STORAGE	Dry and cooler.		Cold.	
COMMODITIES USUALLY STORED	General merchandise and perishable food products.		Perishable food commodities including seafood.	
DESCRIPTION Type of Construction	Concrete frame, concrete block walls; concrete floor.		Steel frame, masonry walls, concrete floor.	
Number of Floors	One.		One.	
Clear Height for Storage (feet):				
First Floor...................	20		23	
Other Floors..................	-		-	
Load Capacity (Lbs/Sq.Ft.):				
First Floor...................	Unlimited.		-	
Other Floors..................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General Storage.......(Sq.Ft.)	241,000	-	-	-
U.S. Customs Bonded...(Sq.Ft.)	-	-	-	-
Cooler Space..........(Cu.Ft.)	-	151,000	-	115,000
Freezer Space.........(Cu.Ft.)	-	-	-	230,000
Convertible Space.....(Cu.Ft.)	-	-	-	-
RAILWAY CONNECTIONS	One surface and one platform-level tracks, total capacity 18 cars, connect with CSX Rail Transport.		One 2-car capacity, platform-level track connects with Florida East Coast Railway.	
TRUCKLOADING STATIONS	Sixty.		Fifteen.	
HANDLING EQUIPMENT	Twenty 1- to 2-ton forklift trucks.		Three 2-ton, electric, forklift turcks, and two 2-ton, electric, pallet jacks.	
FIRE PROTECTION	Automatic fire detection and sprinkler system, hand extinguishers, standpipes, hose and closed circuit television surveillance.		Automatic fire detection and sprinkler system.	
REMARKS	Freon refrigeration system in cooler, temperature range 50° to 72°F.		Freon refrigeration system provides temperature to 0°F in freezer; to 45°F in cooler. Blast freezer facility available.	

STORAGE WAREHOUSES (Cont.)

WAREHOUSE REF. NO.	OFF MAP		OFF MAP	
OPERATOR AND ADDRESS	Smith Terminal Warehouse Co. 12300 N.W. 32nd Avenue Miami, FL 33167		United States Cold Storage 6983 N.W. 37th Avenue Miami, FL 33147	
LOCATION	-		7007 N. W. 37th Avenue	
KIND OF STORAGE	Dry and cooler.		Cold	
COMMODITIES USUALLY STORED	General merchandise and perishable food commodities.		Perishable food commodities and packaged frozen food.	
DESCRIPTION Type of Construction	Concrete block and tilt-up walls; concrete floor.		Concrete frame, concrete block walls; concrete floor.	
Number of Floors	One.		One.	
Clear Height for Storage (feet):				
First Floor....................	24		15-21	
Other Floors..................	-		-	
Load Capacity (Lbs/Sq.Ft.):				
First Floor....................	20,000		Unlimited.	
Other Floors..................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General storage.......(Sq.Ft.)	375,000	-	-	-
U.S. Customs Bonded...(Sq.Ft.)	-	-	-	2,000
Cooler Space..........(Cu.Ft.)	-	-	-	600,200
Freezer Space.........(Cu.Ft.)	-	-	-	2,687,600
Convertible Space.....(Cu.Ft.)	-	-	-	-
RAILWAY CONNECTIONS	One 17-car capacity, carfloor-level track, connects with CSX Rail Transport.		One 6-car capacity, carfloor-level track connects with Florida East Coast Railway.	
TRUCKLOADING STATIONS	Forty seven.		Thirty five.	
HANDLING EQUIPMENT	Thirty-two 2 1/2-ton LP-gas forklift trucks.		Fifteen 1 1/2- to 2-ton, electric, forklift trucks; 14 electric pallet jacks.	
FIRE PROTECTION	Automatic fire detection and sprinkler system, hose stations, and watchmen service.		Security patrol.	
REMARKS	Company operates own trucking fleet.		Circulating ammonia refrigeration system; temperature range, 34°F. to 36°F in cooler; 0-5°F in freezer. Blast freeze, drayage, and USDA meat inspection services.	

OPEN STORAGE

In addition to the long- and short-term, covered storage facilities for waterborne cargo, open storage areas at the Port of Miami are available to the public for storing commodities not requiring protection from the weather. These areas on Dodge and Lummus Islands total approximately 250 acres, and are under the jurisdiction of the Metropolitan Dade County Seaport Department. The majority of this area is dedicated to container storage, but sections are made available for general cargo storage as required. A tabulation of these storage areas is provided in the Summary of General Cargo Facilities on page 24.

Other operators with waterfront facilities have open storage areas to meet their own operational requirements and they usually are not available for public use.

HOISTING EQUIPMENT - ASHORE AND AFLOAT

The Metropolitan Dade County Seaport Department operates 6 diesel-electric containe handling cranes at their Lummus Island Container Terminal (P.W.D. Ref. No. 26). Each cran is capable of traveling the full length of the 3,400-foot long wharf, statistical details of thi equipment are given below.

Number	Type	Capacity (long tons)	Outboard Reach (ft)	Back Reach (feet)	Hoist Height (feet)
3	Hinged boom	50	132	65	100
3	Retractable	40	110	89	92

In addition, any 2 of the 50-ton cranes can be used in tandem for accomplishing lifts u to 77 tons with an outboard reach of 85 feet.

Conventional general cargo usually is handled to and from vessels by ship's tackl However, shore-based hoisting facilities are available through stevedoring and crane rent companies for making heavy lifts up to 200 tons. No floating cranes or derricks for makin heavy lifts at shipside are based at the port.

Cranes, derricks, and special-handling equipment at other waterfront facilities within t port area are usually for the sole use of the operating companies and are described und Mechanical Handling Facilities in the table of Piers, Wharves, and Docks. Many stevedoring a crane rental companies transfer their equipment to the Ports of Port Everglades, Palm Beach, a Port Canaveral as required.

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT

Ten marine repair plants are located in the Miami area: 9 of which maintain waterfro facilities on the Miami River. The plants provide a variety of services such as repair a conversion of oceangoing vessels, tugs, towboats, fishing boats, barges, and other types of sm craft; some of the plants also engage in vessel construction.

Two floating drydocks, six marine railways, and five vertical boat lifts are located at seven of the waterfront marine repair plants. Haul-out capacities of the floating drydocks are 1,600 and 1,000 long tons. Hauling capacities of the marine railways range from 40 to 1,000 tons; and lifting capacities of the vertical boat lifts range from 70 to 500 tons. Details of these plants, and the drydocking equipment are given beginning on page 66.

Marine repair plants with waterfront facilities operated solely for the repair and maintenance of company-owned floating equipment or recreational craft have not been described in this section of the report.

There are no facilities available for making repairs, drydocking, or hauling out large deep-draft vessels at the port; the nearest such facilities by sea are at Jacksonville, Florida, and are described in Port Series No. 15, The Ports of Jacksonville and Fernandina Beach, Florida, last revised in 1986.

FLOATING EQUIPMENT

Floating equipment based at Miami includes nine tugs and towboats with ratings of up to 3,000 horsepower used for towing, docking, undocking, and shifting vessels; and fourteen tank barges equipped with pumps for supplying bunker fuel to vessels at berth in the harbor. The services of the companies operating this equipment extend beyond the limits of the port. The table on page 74 describes this equipment in detail.

Additional information on floating equipment can be obtained from "Waterborne Transportation Lines of the United States." This report, published by the Corps of Engineers, Department of the Army, describes the American flag vessels engaged in the carriage of freight and passengers, listing the net registered tonnage, length, width, draft, horsepower, carrying capacity, and other details of construction; and describes the operations of each vessel operated, listing the waterways used and the localities served. Copies of this publication are for sale by the Commander, U.S. Army Engineer District, New Orleans, ATTN: CELMN-ED-S, P.O. Box 60267, New Orleans, LA 70160-0267. Please call the sales agent at (504)862-2753 to determine price of the current issue.

RAIL LINES

The Port of Miami, Florida, is served by CSX Rail Transport (CSX Transportation, Inc.). The Metropolitan Dade County Seaport Department owns 2.1 miles of trackage at the Port of Miami on Dodge Island, which consists of a main line track extending the length of the island; a 4-track, closed-end marshalling yard; and approximately 5,000 feet of shipside tracks. The main line track on Dodge Island connects via a combination rail and highway bridge with the Florida East Coast Railway. A connection with CSX Rail Transport is effected through an interchange in the west part of the city.

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT

P.W.D. REF. NO.	39-44
OPERATOR AND ADDRESS	Merrill-Stevens Dry Dock Co. 1270 N.W. 11th Street Miami, FL 33101
REPAIR SHOPS AND EQUIPMENT	Machine, pipefitting, paint, electrical, joiner and carpenter, sheet metal, welding, stabilizer, and blacksmith shops; rigging loft; metallizing equipment; air compressor; one 15-ton, diesel-hydraulic mobile crane with 60-foot boom; and one 5-ton, electric stiff-leg derrick with 35-foot boom mounted on bull wheel.
NATURE OF WORK UNDERTAKEN	Above- and below-waterline repairs to all types of vessels up to capacity of marine railway and vertical boat lift; conversions; repairs to steel, wooden, and aluminum hulls, engines, stabilizers, deck machinery, propellers, and shafts.
LARGEST SHAFTS PRODUCED	Lathe: 30-inch swing by 24-foot bed.
VESSEL CAPACITY AT PLANT	20 to 30, depending upon size.

MARINE RAILWAY		VERTICAL BOAT LIFT	
Type	Crandall.		
Dimensions (Feet):		Dimensions (Feet):	
Length of cradle.........	120	Length of platform..........	125
Length on blocks.........	120	Width of platform...........	32
Clear width of cradle at top of keel blocks.....	44	Maximum depth over platform, submerged...............	11
Depth over keel blocks at MHW			
Forward............	7		
Aft.................	10		
Hauling power (tons)	500	Lifting capacity (long tons)..	500
Largest vessel handled	165 by 20 feet.	Largest vessel handled........	130 by 30 feet.

UTILITIES AVAILABLE	Water, compressed air, and A.C., 110/220/440 volts, D.C., 110 volts.
REMARKS	Boats can be transfered to yard from vertical boat lift via sidetracks. Additional repair facilities are located at Dinner Key Division, 2640 S. Bayshore Drive, Miami, FL 33133. Repair work is done at plant and on board vessels at berth in Miami Harbor and vicinity. Boats can be transferred via cradle to track in yard at rear.

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT (Cont.)

REF. NO. OF NEAREST PIER	53	68
OPERATOR AND ADDRESS	Auto-Marine Engineers, Inc. 3464 N.W. North River Drive Miami, FL 33142	Marine Diesel, Inc. 3140 N.W. South River Drive Miami, FL 33142
LOCATION OF PLANT	Left bank of Miami Canal, above foot of N.W. 30th Street extended.	West bank, Tamiami Canal, above South River Drive Bridge.
REPAIR SHOPS AND EQUIPMENT	Machine and engine shops; drill presses; milling and boring machines; grinders; lathes; portable electric welding and hand tools.	Engine shop; portable welding units; portable compressors; and hand tools.
NATURE OF WORK UNDERTAKEN	Repairs and installation of marine engines and related equipment.	Diesel engine repair.
LARGEST SHAFTS PRODUCED	None.	None.
VESSEL CAPACITY AT PLANT	5 to 6 depending upon size.	None.
REMARKS	Marine repair plant consists of 3 buildings. Repair work is done at plant and on board vessels at berth in Miami Harbor and vicinity.	-

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT (Cont.)

REF. NO. OF NEAREST PIER	61-62			
OPERATOR AND ADDRESS	Jones Boat Yard 3399 N.W. South River Drive Miami, FL 33142			
LOCATION OF PLANT	Right bank, Miami Canal, below entrance to Palmer Lake.			
REPAIR SHOPS AND EQUIPMENT	Carpenter, hydraulic, paint, electric, and machine shops; welding equipment; metallizing equipment; air compressor; portable power and hand tools; one 90- by 26-foot derrick barge with 30-ton crane equipped with 80-foot boom, and two 5-ton mobile hoists.			
NATURE OF WORK UNDERTAKEN	Above- and below-waterline repairs to all types of vessels up to capacity of vertical boat lift. Installation of and repairs to engines and stabilizers; muffler fabrication; cleaning; painting; sandblasting; varnishing; electrical repairs; repair and installation of propellers and shafts.			
LARGEST SHAFTS PRODUCED	Lathes: one 52-inch swing by 7-foot bed; and two 40-inch swing by 30-foot beds.			
VESSEL CAPACITY AT PLANT	6 at wharf; 20 in covered storage; 26 on land.			
DRYDOCKING EQUIPMENT	2 FLOATING DRYDOCKS		VERTICAL BOAT LIFT	MOBILE BOAT LIFT
Length overall...............(ft.)	150	120	103 by 26 platform	-
Length on blocks.............(ft.)	150	120	-	-
Width overall................(ft.)	70	60	-	-
Clear width for vessel.......(ft.)	60	48	-	-
Maximum depth over blocks....(ft.)	14	12	10	-
Lifting capacity.......(long tons)	1,600	1,000	250	60
Mean tidal variation.........(ft.)	1.4	1.4	-	-
Largest vessel handled.......(ft.)	180 by 50	150 by 40	-	-
Year built/rebuilt...............	1986	1985	1973	-
Utilities available..............	Water, compressed air, and A.C., 110/220/440 volts.			
REMARKS	Boats can be transferred via cradles and transverse tracks onto three storage tracks at rear of vertical boat lift.			

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT (Cont.)

REF. NO. OF NEAREST PIER	70	71
OPERATOR AND ADDRESS	The Moorings 1585 N.W. 24th Avenue Miami, FL 33125	Key Power, Inc. 2277 N.W. 14th Street Miami, FL 33135
LOCATION OF PLANT	Right bank, Miami River, approximately 900 feet above N.W. 22d Avenue Bridge.	Right bank, Miami River, approximately 700 feet above N.W. 22d Avenue Highway Bridge.
REPAIR SHOPS AND EQUIPMENT	Carpenter, electronic, mechanical, machine, sandblast and paint shops; welding equipment and portable tools; one 100-ton vertical boat lift.	Machine, engine, and generator shop; portable tools.
NATURE OF WORK UNDERTAKEN	Above-waterline repairs to all types of vessels up to 200 feet in length.	Repair and installation of marine engines, transmissions, and generators.
LARGEST SHAFTS PRODUCED	Lathe: 12-inch by 6-foot bed.	None.
VESSEL CAPACITY AT PLANT	One on vertical boat lift, several on transfer cradles, and others at wharf, in slip, and in 3 boat basins on upper side.	Up to 8.
VERTICAL BOAT LIFT		
Dimensions (Feet):		
Length of platform.......	120	-
Width of platform........	30	-
Maximum depth over platform, submerged....	7	-
Lifting capacity (Tons)	100	-
Largest vessel handled (Feet)	110 by 25	-
Date built/rebuilt	-	-
Utilities available	Water, compressed air, and A.C., 125/220/440 volts.	-
REMARKS	Boats can be transferred via cradles and transfer tracks at rear of vertical lift.	Repair work at plant and on board vessels at berth in Miami Harbor.

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT (Cont.)

REF. NO. OF NEAREST PIER	72
OPERATOR AND ADDRESS	Mesa Marine Repairs, Inc. 2215 N.W. 14th Street Miami, FL 33142
LOCATION OF PLANT	Right bank, above N.W. 22d Avenue Bridge, and 3230 N.W. South River Drive.
REPAIR SHOPS AND EQUIPMENT	Machine, engine, carpenter, sandblasting, and paint shops; lathes; drill presses; portable tools; one 1,000-ton marine railway; one 15-ton diesel mobile crane with 37-foot boom; and one 4-ton, diesel forklift truck.
NATURE OF WORK UNDERTAKEN	Above- and below-waterline repairs to vessels up to capacity of marine railway. Engine repairs.
LARGEST SHAFTS PRODUCED	By subcontract.
VESSEL CAPACITY AT PLANT	One on marine railway, 3 on side transfers; approximately 1,000 feet of berthing space.
MARINE RAILWAY	
Dimensions (Feet):	
Length of cradle..................	200 (150 for transfer) (See Remarks.)
Length on blocks..................	45
Clear width of cradle at top of keel blocks..................	30, boat; 45, barge.
Depth over keel blocks at MHW	
Forward..................	15
Aft..................	15
Hauling power (tons)	1,000
Largest vessel handled	190 by 36-foot boat; 220 by 42-foot barge.
Utilities available	Water, and A.C., 110/220 volts.
REMARKS	Repair work done at plant and on board ships at berth in Miami Harbor. Three 150- by 50-foot transfer cradles used for side transfer.

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT (Cont.)

P.W.D. REF. NO.	77
OPERATOR AND ADDRESS	Norseman Shipbuilding Corp. 437 N.W. South River Drive Miami, FL 33128
LOCATION ON WATERFRONT	Right bank, Miami River, approximately 500 feet above N.W. 5th Street Bridge.
REPAIR SHOPS AND EQUIPMENT	Electrical and carpenter shops; air compressor; steam-cleaning equipment; portable power and hand tools; cranes rented as required; one 70-ton, vertical boat lift.
NATURE OF WORK UNDERTAKEN	Above- and below-waterline repairs to steel, aluminum, wooden, and fiberglass hulls of vessels up to capacity of vertical boat lift; hull, deck, and superstructure repairs; cleaning and painting.
LARGEST SHAFTS PRODUCED	None.
VESSEL CAPACITY AT PLANT	9 - 10 depending upon size.
VERTICAL BOAT LIFT	
Dimensions (FEET):	
Length of platform................	58
Width of platform.................	26
Maximum depth over platform, submerged......................	6
Lifting force (Long tons)...........	70
Largest vessel handled..............	72 by 22 feet.
Utilities available.................	Water, compressed air, A.C., 125/220/250/440 volts.
REMARKS	Vessels can be transferred from vertical boat lift via cradles and transverse tracks to 3 sets of side rails. Repair work done at plant and on board vessels at berth in Miami Harbor and vicinity.

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT (Cont.)

REF. NO. OF NEAREST PIER	81
OPERATOR AND ADDRESS	Bimini Boatyard of Miami 151 N.W. South River Drive Miami, FL 33128
LOCATION OF PLANT	Right bank, Miami River, approximately 700 feet above W. Flagler Street Bridge.
REPAIR SHOPS AND EQUIPMENT	Combination engine, machine, carpenter, and electrical shop. All types of welding equipment. Portable electric and hand tools.
NATURE OF WORK UNDERTAKEN	Above- and below-waterline repairs to vessels up to 50 tons and 83 feet long on marine railway and 120 feet long at berth. Engine repairs and installations; repairs to hulls, decks, superstructures, and refrigeration equipment; sandblasting, cleaning, and painting.
LARGEST SHAFTS PRODUCED	None.
VESSEL CAPACITY AT PLANT	One on marine railway, others at wharf.
MARINE RAILWAY	
Type	Crandall - steel cradle.
Dimensions (Feet):	
Length of cradle..................	40
Length on blocks..................	40
Clear width of cradle at top of keel blocks.....................	20
Depth over keel blocks at MHW	
Forward......................	6
Aft..........................	8
Hauling power (tons)	50
Largest vessel handled	50 by 18
Utilities available	Water, compressed air, and A.C., 110/220 volts.
Date built and/or rebuilt	1969/1980
REMARKS	-

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT (Cont.)

REF. NO. OF NEAREST PIER	85		
OPERATOR AND ADDRESS	Miami Shipyards Corp. 615 S.W. 2d Avenue Miami, FL 33130		
LOCATION OF PLANT	Right bank, Miami River, east of S.W. 2d Avenue Bridge.		
REPAIR SHOPS AND EQUIPMENT	Machine, welding, joiner, woodworking, and propeller and shaft shops; air compressor; gas and electric welding equipment; one 700-, one 250-, and one 100-ton marine railway; two 15-ton, diesel, mobil hoists with 60-foot telescopic boom.		
NATURE OF WORK UNDERTAKEN	Above- and below-waterline repairs to all types of vessels up to capacity of marine railways; repairs to propellers and shafts; fuel injection system service. Electrical and electronic repairs by subcontract.		
LARGEST SHAFTS PRODUCED	Lathe: 36 inch swing by 30 foot bed.		
VESSEL CAPACITY AT PLANT	Up to 6 at pier.		
MARINE RAILWAY			
Type	Crandall.		
	No. 2	No. 3	No. 4
Dimensions (Feet):			
Length of cradle..................	120	70	180
Length on blocks..................	100	70	150
Clear width of cradle at top of keel blocks....................	24	22	36
Depth over keel blocks at MHW			
Forward......................	6	10	10
Aft..........................	8	10	13
Hauling power (tons)	250	100	700
Largest vessel handled	118 by 24	85 by 20	185 by 3
Date built and/or rebuilt	1941	1941	1936
Utilities available	Water and A.C.: 110/220 volts, D.C.: 110 volts.		
REMARKS	Marine repair plant consists of a 19-building and shop complex. Repair work done at plant and on board vessels at berth in Miami Harbor and vicinity.		

FLOATING EQUIPMENT
(Available to the Public)

(a) OPERATOR AND ADDRESS (b) BASE FROM WHICH OPERATED	NAME	DIMENSIONS OVERALL LENGTH (FEET)	DIMENSIONS OVERALL WIDTH (FEET)	DRAFT UNDER LOAD (FEET)	HORSE-POWER	REMARKS
		TUGS AND TOWBOATS				
(a) Backus, Howard W., Towing, Inc. 1201 N.W. South River Dr. Miami, FL 33125 (b) P.W.D. Ref. No. 74	Howard W.	46	15	5.5	380	Towing, docking, undocking, and shifting vessels on Miami River, in Miami Harbor, and on Intracoastal Waterway; occasional towing to Key West and northern Caribbean ports.
	Anita Backus	53	18	8.0	680	
	Wrestler II	44	14	5.0	335	
	Frederick II	38	13	6.5	200	
(a) Coastal Tug & Barge, Inc. P.O. Box 02550 Miami, FL 33152 (b) P.W.D. Ref. No. 24	Edwin N. Belcher	90	28	9.5	2,000	Towing, docking, undocking, shifting vessels in Miami Harbor.
	W. C. Smith	90	28	9.5	2,000	
	Jeanette Belcher	85.1	28	9.6	1,800	
	Mary Belcher	96	28	13.0	3,000	Towing, docking, undocking, shifting vessels in Miami Harbor; salvage work.
	Belcher Miami	79.5	33	14.9	3,000	
	Coastal Pensacola	64	24	7.6	1,200	
	Coastal Florida	90	32	13.0	4,000	
(a) Commercial Assistance Towing Co. 151 NW South River Drive Miami, FL 33125 (b) P.W.D. Ref. No. 81	Sparky	26	10	3.5	130	Operations are largely restricted to Miami River.
	Fearless	26	10	3.5	130	
		TANK BARGES			CAPACITY (BBLS)	
(a) Coastal Tug & Barge, Inc. P.O. Box 02550 Miami, FL 33152 (b) P.W.D. Ref. No. 24	Belcher No. 10	225	45	9.0	12,000	Carrying bunker fuel to vessels at berth in Miami Harbor and Port Everglades, and carrying petroleum products; equipped with pumps.
	Belcher No. 11	225	45	9.0	12,000	
	Belcher No. 16	192.1	35	8.4	7,000	
	Belcher No. 18	210	39	9.0	9,000	
	Belcher No. 19	210	40	9.0	9,000	
	Belcher No. 20	210	40	9.0	9,000	
	Belcher No. 21	210	40	9.0	9,000	
	Belcher No. 25	210	40	9.0	11,700	
	Belcher No. 26	210	40	9.0	11,700	
	Belcher No. 28	120	33	9.0	4,000	
	Belcher No. 33	260	64	16.0	35,000	
	Belcher No. 34	180	40	9.0	8,000	
	Belcher No. 35	298	52	9.0	18,000	
	Belcher No. 38	128	36	10.0	6,000	

PORT OF PORT EVERGLADES, FLORIDA

PORT AND HARBOR CONDITIONS

LOCATION AND GENERAL DESCRIPTION

The Port of Port Everglades is located on the southeast coast of Florida, partly within the city of Fort Lauderdale and partly within the city of Hollywood. The port is 27 nautical miles north of the Port of Miami, Florida, and 301 nautical miles south of Jacksonville, Florida.

The deepwater entrance to the port is via a dredged channel extending in an east-west direction from the ocean and through the barrier beach to a large turning basin in Lake Mabel. The channel entrance, protected by two inner rock jetties, is further protected by two outer, converging, submerged, rock breakwaters at 10 to 15 feet below mean low water. These breakwaters are about 2,500 feet apart at their shoreward ends, 1,200 feet apart at their seaward ends, and 100 feet wide on top. The route of the Atlantic Intracoastal Waterway passes through the harbor's turning basin in a north-south direction.

Waterfront facilities for deep-draft vessels are situated along the west side of the turning basin and south extension, along the sides of three slips on the west side of the turning basin, the south and east sides of the south extension of the turning basin, and along the west side of the Atlantic Intracoastal Waterway, south of the turning basin.

HARBOR AND CHANNEL IMPROVEMENTS BY THE UNITED STATES

The existing project, authorized by the River and Harbor Act of July 3, 1930, and modified by a number of acts, the latest of which is May 31, 1974, provides for:

> An entrance channel 45 feet deep and 500 feet wide within a channel 40 feet deep and 575 feet wide from deep water to Station 41+00 converging to a width of 450 feet and depth of 42 feet at Station 51+00; thence a channel 42 feet deep and 450 feet wide to Station 74+50 where the channel flares into a turning basin 42 feet deep and 2,600 feet along the westerly side, 800 feet along the north side and 1,100 feet along the south side; a turning basin extension to the south of the 42-foot basin with a depth of 31 feet and measuring about 1,000 feet north-south and 1,100 feet east-west with a channel inside along the westerly edge, varying in depth from 37 to 36 feet and narrowing in width from 300 to 150 feet over a distance of about 1,000 feet; a turning basin extension 1,200 feet to the north with a depth of 31 feet and east-west dimension tapering from 800 to 500 feet. Enlarging Pier 7 channel to 36 by 400 feet for a distance of about 1,600 feet and maintenance of two converging rubblestone jetties at the entrance and two parallel steel sheet piling bulkheads, previously constructed by local interests. Both jetties have been reconstructed and enlarged as a maintenance feature.

All depths refer to the plane of mean low water. The project is complete.

HARBOR AND CHANNEL IMPROVEMENTS BY LOCAL INTERESTS

The conditions of local cooperation have been fulfilled including the provision of all lands, easements, and rights-of-way; holding the United States free from damages; accomplishing utility, and other, relocations or alterations. In addition, local interests have provided public terminal and transfer facilities; and depths in berthing areas and local access channels serving the terminals commensurate with depths provided in the related project areas.

Furthermore, the conditions stated that local authority must establish regulations prohibiting the erection of any structure within 100 feet of project channel as authorized at time of construction and prohibit the discharge of pollutants into waters of the channel by users thereof.

The Port Everglades Authority has constructed a deep-draft channel, turning notch and berthing area adjacent to the Atlantic Intracoastal Waterway, just south of the main terminal complex to serve the authority's Southport Container Terminal. The waterway improvements included deepening a portion of the Intracoastal Waterway to 42 feet and widening it to 400 feet (Southport Channel), installing a 42 feet deep Turning Notch with a bottom width of 750 feet (north to south) by 900 feet (east to west), and dredging berthing areas to 42 feet deep by 110 feet wide. The Southport Container Complex is about 5,200 feet south of the main turning basin and the Southport Channel is about 8,000 feet long with about 2,800 feet of that length adjacent to the container complex. At the time of survey, a modification of the Federal Project to include this work, was under study.

The controlling depths and project dimensions in the various sections of the harbor are shown in the tabulation below.

NAME OF CHANNEL	CONTROLLING DEPTHS (MLW)				DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER		LENGTH (NAUT. MILES)	WIDTH (FEET)	DEPTH MLW (FEET)
Outer Bar Cut (from sea buoy 2 to east end of south jetty).	45	45	45	42	10/86	500-450	0.84	45
Bar Cut (east end south jetty to turning basin, LT 9)	41	42	42	42	10,11/86	450	0.4	42
Turning Basin	43				12/86			44
North Extension	31				12/86			31
South Extension:								
West Quarter	37				12/86			36-37
East Three Quarters	37				12/86			31
Pier 7 Channel	36				12/86			36
Southport Channel	42				12/89	400	1.3	42
Turning Notch	42				8/90			

TIDES AND CURRENTS

The mean range of tide is 2.6 feet at the entrance and 2.3 feet at the Port Everglades Authority wharves. Extreme range is about 4.5 feet with storm tides of about 6.5 feet. The tidal currents in the entrance channel average about 0.7 knot; current swirls of varying characteristics are often encountered in the turning basin, making handling of ships difficult. Prevailing winds from the southeast and east coupled with a rising tide are the most hazardous. The entrance channel normally has a northerly current of up to 2 knots, but it has been reported to be as much as 5 knots.

ANCHORAGES

The recommended anchorage is northeast of Port Everglades Lighted Buoy 2, between the inner and outer reefs. Deep-draft vessels should await the pilot or contact the Port Everglades harbormaster's office on VHF-FM channel 14 or 16 for information and assistance before anchoring. Anchoring south of the entrance channel by vessels with a draft in excess of 12 feet is prohibited.

BRIDGES

No bridges cross the entrance channel or Port Everglades harbor.

WEATHER CONDITIONS

The moderating influence of the waters of the Atlantic on maximum temperatures in summer and minimum temperatures in winter is quite strong along the immediate coast but diminishes noticeably a few miles inland. The mean daily maximum temperature on the immediate coast is over 2°F lower in winter and 3.5°F lower in summer than at the city station 3 miles inland. Mean daily minimum temperatures are higher on the immediate coast than in the city throughout the year, the difference ranging from a little more than 1°F in September and October to about 5°F in January. Temperatures reach 90 degrees or higher on the coast on only about one-fourth as many days as in the city. Freezing temperatures have been recorded in the Fort Lauderdale area on only 10 days during a 34-year period.

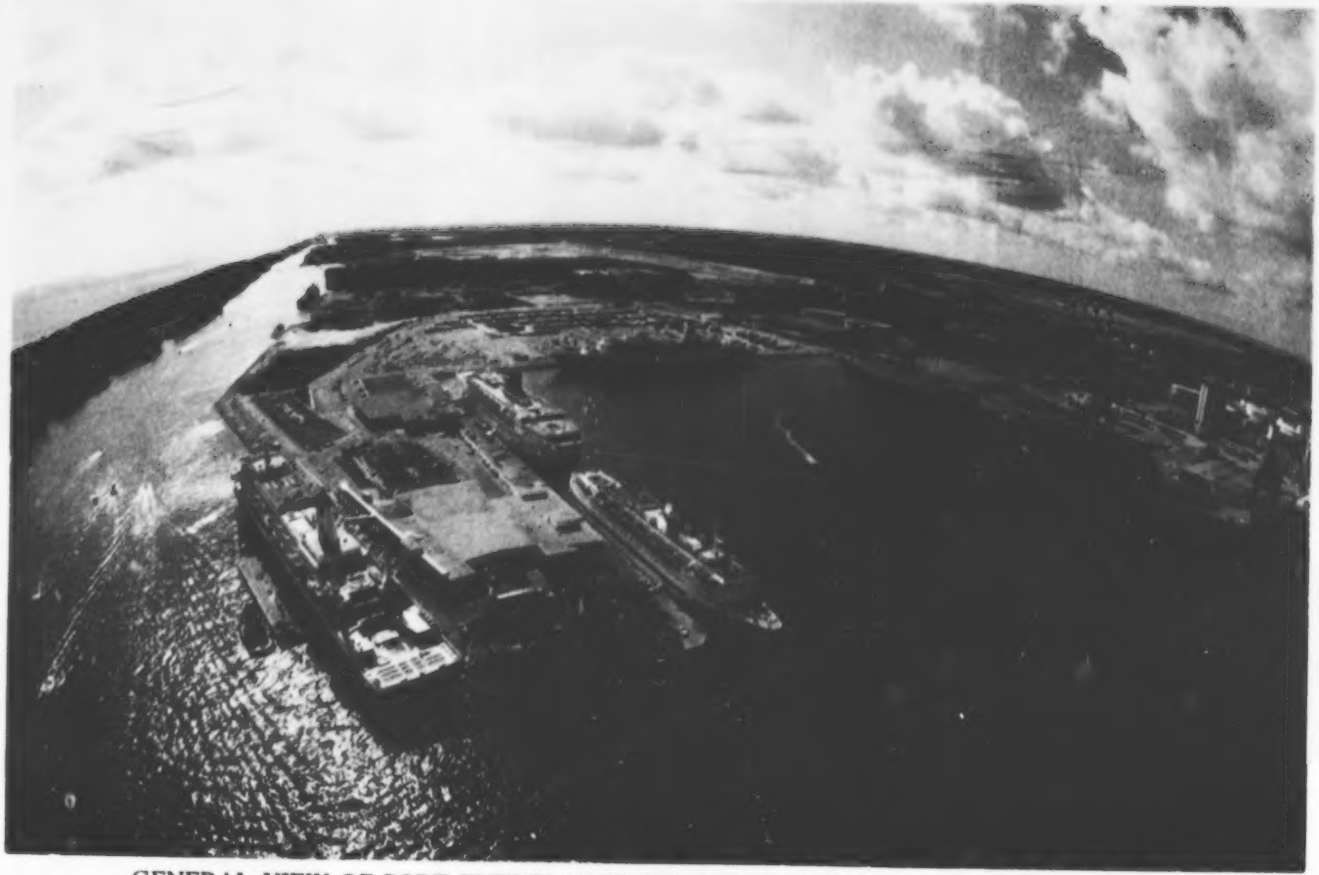
Precipitation occurs during all seasons, but on the basis of mean monthly totals of precipitation, there is a rainy season of 5 months from June through October that brings nearly 62 percent of the annual rainfall, and a relatively dry season of 5 months from November through March that produces only about 22 percent of the annual total. However, most of the rains are of relatively short duration, coming as showers frequently associated with thunderstorms, and the average amount of cloudiness during the rainy season is not much greater than during the dry season. Some of the heaviest rains have been associated with the passage of tropical storms. Other causes occasionally produce 24-hour rainfalls in excess of 8 inches.

pages tightly bound

Tropical storms bring hazardous conditions to this area at irregular intervals; the chance of hurricane force winds in any given year are estimated to be about one in eight. Thunderstorms occur in all months of the year and occasionally develop to severe proportions and may include such destructive elements as hail, excessive rain, or strong winds. Hail, generally small in size, occurs occasionally and almost all occurrences have been in April or May. No snow or sleet appear in the records for the Fort Lauderdale area.

Prevailing wind directions are southeasterly from March through October and northwest to east for the other months. A high frequency of easterly components in the wind direction at all seasons strengthens the maritime climatic feature which is very definite in this area. Wind velocities generally range from 12 to 20 miles per hour during the day and usually drop below 10 miles per hour at night. The average relative humidity ranges from about 87 percent in the early morning to about 60 percent in the early afternoon. The number of days with heavy fog averages less than 10 per year.

Statistical information concerning temperature conditions, precipitation, prevailing wind direction, and fog is not readily available for Port Everglades. The weather conditions as presented under the Miami section of this report are most nearly representative of those prevailing at Port Everglades.



GENERAL VIEW OF PORT EVERGLADES CONTAINER HANDLING FACILITIES AT BERTHS NOS. 16 THROUGH 18 ON RIGHT, AND CRUISE PASSENGER TERMINALS BERTHS NOS. 19 THROUGH 27 CENTER AND LEFT
(P.W.D. Ref. Nos. 11 through 14) .

NOVA UNIVERSITY, OCEANOGRAPHIC CENTER BOAT BASIN
(P.W.D. Ref. No. 1)

MOORING PIERS ON NORTH SIDE OF U.S. COAST GUARD
FORT LAUDERDALE STATION BOAT BASIN
(P.W.D. Ref. No. 2)

PASSENGER AND GENERAL CARGO FACILITIES AT PORT
EVERGLADES AUTHORITY, BERTHS NOS. 1, 2, AND 3;
PART OF NORTHPORT CONVENTION CENTER COMPLEX
(P.W.D. Ref. No. 4)

BIRDS-EYE VIEW OF PORT EVERGLADES AUTHORITY
BERTHS NOS. 2 AND 3 PASSENGER TERMINAL
(P.W.D. Ref. No. 4)

PORT EVERGLADES AUTHORITY, BERTH NO. 4;
WEST SIDE OF SLIP NO. 2
(P.W.D. Ref. No. 5)

PORT EVERGLADES AUTHORITY, BERTH NO. 4A, FOR
HANDLING ROLL-ON ROLL-OFF GENERAL CARGO
(P.W.D. Ref. No. 6)

GENERAL VIEW OF SLIPS NOS. 2, 1, AND 3, PORT EVERGLADES AUTHORITY BERTHS NOS. 4 THROUGH 15 (P.W.D. Ref. Nos. 6 through 10)

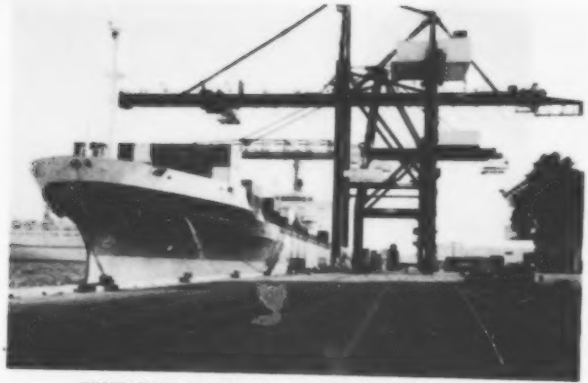
PORT EVERGLADES AUTHORITY, BERTHS NOS. 5 AND 6 (P.W.D. Ref. No. 7)

PORT EVERGLADES AUTHORITY, BERTHS NOS. 7 AND 8 (P.W.D. Ref. No. 8)

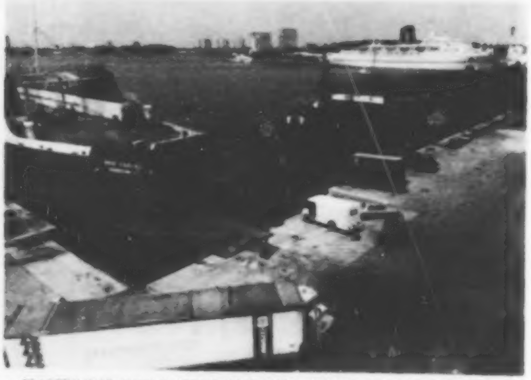
PORT EVERGLADES AUTHORITY, BERTH NO. 11, USED FOR HANDLING LIQUEFIED PETROLEUM GAS (P.W.D. Ref. No. 9)

INNER END PORT EVERGLADES AUTHORITY SLIP NO. 3, BERTHS 12 AND 13, ON RIGHT, HANDLES PETROLEUM PRODUCTS, AND BERTH 14, ON LEFT, HANDLES CEMENT (P.W.D. Ref. Nos. 9 and 10)

GANTRY BULK CEMENT UNLOADER OPERATED BY CONTINENTAL CEMENT CO. AT PORT EVERGLADES AUTHORITY, BERTH 14 (P.W.D. Ref. No. 10)



CONTAINER HANDLING AT PORT EVERLADES AUTHORITY, BERTHS 16 AND 17
(P.W.D. Ref. No. 11)



HANDLING ROLL-ON ROLL-OFF GENERAL CARGO VIA STERN RAMP AT SOUTH END OF PORT EVERGLADES AUTHORITY, BERTH 18
(P.W.D. Ref. No. 11)

WHARF AND PASSENGER RAMP AT PORT EVERGLADES AUTHORITY, BERTHS 19 AND 20
(P.W.D. Ref. No. 12)

PORT EVERLGLADES AUTHORITY, BERTH NO. 24
(P.W.D. Ref. No. 13)

PORT EVERGLADES AUTHORITY, BERTHS NOS. 26 AND 27
(P.W.D. Ref. No. 14)

SHIPPING SCRAP METAL AT PORT EVERGLADES AUTHORITY, BERTH NO. 29
(P.W.D. Ref. No. 16)

PORT OF PORT EVERGLADES

PORT AND HARBOR FACILITIES

PIERS, WHARVES, AND DOCKS

A total of 18 piers, wharves, and docks are described in this report on the Port of Port Everglades. All are located within the cities of Hollywood and Fort Lauderdale along the sides of the turning basin in Lake Mabel and the Atlantic Intracoastal Waterway south of the entrance channel, and all except the two on the east side of the Intracoastal Waterway are owned and operated by the Port Everglades Authority, primarily as terminals for cruise vessels and for handling general cargo and petroleum products.

One of the two mooring basins on the east side of the Intracoastal Waterway serves as a base for oceanographic research vessels and the other is part of a U.S. Coast Guard Station. Each facility is described under a reference number in the table of Piers, Wharves, and Docks, beginning on page 86. These reference numbers designate facility locations on the accompanying Port Facilities map.

Waterfront facilities in the port area used exclusively by recreational craft are not included in this report.

The table on the following page summarizes the functional uses of the various piers, wharves, and docks at Port Everglades. Many of these facilities are used for multiple purposes as indicated in the table; each can be identified by its respective P.W.D. reference number.

The facilities engaged in handling general cargo in the port are owned and operated by the Port Everglades Authority. A summary of these facilities is given on page 85.

PURPOSE FOR WHICH USED

LOCATION	LAKE MABEL													A				
P.W.D. REFERENCE NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Cargo handling:																		
General cargo:																		
Conventional				●	●					●	●	●						
Containerized											●						●	
Roll-on roll-off			●	●	●	●					●	●			●			●
Asphalt							●	●										
Cement										●	●							
Crude oil							●	●										
Liquefied petroleum gas									●									
Lumber							●						●	●		●		
Newsprint											●			●		●		
Petroleum products							●	●	●	●								
Scrap metal																●		
Steel/steel products							●							●		●		
Vehicles											●							
Waste paper							●											
Bunkering (vessels)				●	●		●	●	●	●	●		●	●			●	●
Passengers				●	●					●		●	●	●				
Mooring:																		
Excursion vessels				●	●					●		●	●	●				
Government equipment		●										●	●					
Harbor craft/tugs														●				
Oceanographic research vessels	●														●			
Miscellaneous	●														●			

A - WEST SIDE, ATLANTIC INTRACOASTAL WATERWAY

SUMMARY OF GENERAL CARGO

P.W.D. REF. NO.	MODE	OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	TRANSIT SHEDS		CONTAINER FREIGHT STATION		CONTAINER STORAGE CAPACITY	OPEN STORAGE AREA (ACRES)
					NO.	CARGO SPACE (SQ. FT.)	NO.	CAPACITY (SQ.FT.)		
		PORT EVERGLADES AUTHORITY								
3	R	Pier 5...................	200	33	-	-	-	-	-	-
4	GR	Berths 1, 2, and 3.......	1,601	37	2	98,000	-	-	-	-
5	GR	Berth 4..................	900	42	-	-	1	45,000	-	-
7	G	Berths 5 and 6...........	1,278	42	1	15,680	-	-	-	6.8*
10	G	Berths 14 and 15.........	1,226	37	1	83,600	-	-	-	2.8
11	CGR	Berths 16, 17, and 18....	1,648	37	-	-	1	83,940	3,330	-
12	GR	Berths 19 and 20.........	1,300	34	1	50,000	-	-	730	-
14	G	Berths 26 and 27.........	1,820	38	-	-	-	-	-	-
15	R	Berth 28.................	550	32	-	-	-	-	-	2
17	C	Berths 31 and 32.........	2,000	42	-	-	1	33,000	2,100	-
		CROWLEY MARITIME CORP.								
18	CR	Berth 33.................	810	42	-	-	-	-	2,300	-
			TOTALS		5	247,280	3	161,940	8,430	60.4

MODE: G - CONVENTIONAL; R - ROLL-ON ROLL-OFF;
C - CONTAINERS LIFT ON-LIFT OFF

* Used essentially for storage of roll-on roll-off cargo containers.

CORPS OF ENGINEERS PORT CODE NO.	14311 Dock Code No. 985			14311 Dock Code No. 987			14311 Dock Code No. 224	
REFERENCE NUMBER ON MAP NO. 3	1			2			3	
NAME	Nova University, Oceanographic Center Boat Basin.			U. S. Coast Guard, Fort Lauderdale Station Boat Basin.			Port Everglades Authority, Pier	
LOCATION ON WATERFRONT	East shore of Lake Mabel, approximately 0.1 mile south of inner end of Port Everglades entrance channel. 8000 North Ocean Drive.			East shore of Lake Mabel, approximately 0.2 mile south of inner end of Port Everglades entrance channel. 7000 North Ocean Drive.			West shore of Lake Mabel, north of north extension to turning ba below Brook Memorial Causeway (St Highway A1A). S.E. 18th Court.	
OWNED BY	Broward County.			U. S. Coast Guard.			Port Everglades Authority.	
OPERATED BY	Nova University Oceanographic Center.			U. S. Coast Guard.			Port Everglades Authority and Eva Shipping, Inc.	
PURPOSE FOR WHICH USED	Mooring oceanographic research vessels and small craft.			Mooring U. S. Coast Guard vessels.			Receipt and shipment of roll-on, roll-off general cargo.	
TYPE OF CONSTRUCTION	Rectangular boat basin formed by concrete sheet pile retaining walls with solid fill; one timber pile, timber-decked- and one concrete pile concrete-decked pier, each 40- by 6-foot, extend from north side, a 110- by 30-foot floating office barge is located at northeast corner and one 40- by 6-foot timber pile, timber-decked pier extends from east side; timber piles form additional boat slips on east, south and west sides.			Basin formed by concrete-capped, steel sheet pile bulkhead, with part asphalt-surfaced solid fill, on north and east sides; breakwater on south and west sides. Two timber pile timber-decked- and one concrete pile, timber-decked piers extend from recessed north side, forming three 50- by 24-foot slips.			Concrete-capped, steel sheet pile bulkhead with part asphalt-surfac solid fill; fronted by rubber tir and timber fenders.	
DESCRIPTION	North and South sides	East side	West side	Two piers	One pier	East side	East Side	South Side
Dimensions (Feet)	152, each	300	70+180	50x10, ea.	50x18	266	200	102+100+199
Depth Alongside at MLW Do.	8	8	8	9	9	9	0-33	33
Breasting Distance Do.	152, each	300	70+180	200	100	266	200	Ramp+100+199
Total Berthing Space Do.	152, each	300	70+180	4, vessels	2, vessels	266	200	Ramp+100+199
Width of Apron Do.	Open.			10, each	18		95 and open.	35 and open.
Height of Deck at MLW Do.	7			6.5			8	8; 5 ramp
Load Capacity (lbs. per Sq. Ft.)	-			100, uniform; 500, wheel			1,000	
Lighted or Unlighted	Lighted.			Lighted.			Lighted.	
MECHANICAL HANDLING FACILITIES	None.			One 17-ton, gasoline, mobile vertical boat lift.			None.	
RAILWAY CONNECTIONS	None.			None.			None.	
HIGHWAY CONNECTIONS	Via driveway, gravel, 16 feet wide, from North Ocean Drive, paved, 24 feet wide.			Via driveway, from North Ocean Drive, each asphalt, 24 feet wide.			Via S.E. 18th Court and Avenue, S.E. 20th St., Eisenhower and Spa ler Boulevards, each paved, dual lane, each side 24-30 feet wide.	
WATER SUPPLY (For Vessels)	Through 2-inch lines with 3/4-inch hose connections.			Through 3/4-inch line.			Through 6-inch line with 2-inch connections.	
ELECTRIC CURRENT (For Vessels)	A.C., 120/240 volts.			A.C., 120/240 volts.			A.C., 110/220/480 volts.	
FIRE PROTECTION (Other Than City)	Hand extinguishers, water line, hose reel, and security patrol.			Hydrant, hose, and hand extinguishers.			Port fire department, hydrants, an watchmen.	
REMARKS	Laboratory and office buildings are located at rear. Entrance to basin from Lake Mabel is approximately 80 feet wide.			Inner pier on north side and east bulkhead form a 50- by 17-foot slip served by mobile vertical boat lift. One diesel fueling pipeline extends to north bulkhead from one 5,000-gallon storage tank in rear. One 4-inch sewage line serves piers.			One 102-foot wide concrete loadin ramp is located at inner end of south side.	

CORPS OF ENGINEERS PORT CODE NO.	14311 Dock Code No. 228		14311 Dock Code No. 229	14311 Dock Code No. 230
REFERENCE NUMBER ON MAP NO. 3	4		5	6
NAME	Port Everglades Authority, Berths 1, 2, and 3.		Port Everglades Authority, Berth 4.	Port Everglades Authority, Berth 4A.
LOCATION ON WATERFRONT	West shore of Lake Mabel, north of Slip No. 2, between foot of S.E. 22d and S.E. 18th Streets extended. Foot of S.E. 20th Street.		West shore of Lake Mabel, north side of Slip No. 2, between foot of S.E. 22d and S.E. 18th Streets extended. Foot of S.E. 22nd Street.	West shore of Lake Mabel, head of Slip No. 2, between foot of S.E. 22d and S.E. 18th Streets extended. Foot of S.E. 22nd Street.
OWNED BY	Port Everglades Authority.		Port Everglades Authority.	Port Everglades Authority.
OPERATED BY	Port Everglades Authority.		Port Everglades Authority.	Port Everglades Authority.
PURPOSE FOR WHICH USED	Receipt and shipment of conventional and roll-on, roll-off general cargo in foreign and domestic trade; mooring cruise vessels; passengers; bunkering vessels.		Receipt and shipment of conventional and roll-on, roll-off general cargo in foreign and domestic trade; mooring cruise vessels; passengers; bunkering vessels.	Occasional receipt and shipment of roll-on, roll-off general cargo in foreign and domestic trade.
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber-cushioned steel and rubber fenders.		Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber-cushioned steel and rubber fenders.	Concrete-capped, steel sheet pile bulkhead with inclined concrete ramp on solid fill; fronted by rubber fender system.
DESCRIPTION	Face		Face	Face
Dimensions (Feet)	1,601		900	290
Depth Alongside at MLW Do.	37		42	42
Breasting Distance Do.	1,601		900	290
Total Berthing Space Do.	1,601		900	290
Width of Apron Do.	Open.		90 and open.	Open.
Height of Deck at MLW Do.	8		8	5
Load Capacity (Lbs. per Sq. Ft.)	1,000		1,000	-
Lighted or Unlighted	Lighted.		Lighted.	Lighted.
TRANSIT SHEDS Number and Description	Two concrete frame; concrete walls; asphalt floors. (See Remarks.)		One - concrete frame; combination passenger terminal and container freight station.	None.
	Building No. 1	Building No. 2	Building No. 4	
Length and Width (Feet)	400 by 190	400 by 190	300 by 280 to 340	
Height Inside Do.	20	20	20	
Floor Area for Cargo (Sq. Ft.)	69,000, approx.	69,000, approx.	65,000, approx.	
Load Capacity (Lbs. per Sq. Ft.)	1,500	1,500	1,500	
Cargo Doors	Shipside: nine; rear: nine; each side: two; all 16 by 18.	Shipside: seven; rear: nine; each side: two; all 16 by 18.	East side: two; rear: twenty to rail/truck platform; all 16 by 12.	
ECHANICAL HANDLING FACILITIES	One adjustable passenger gangway extends from second level of each transit shed; cargo handling equipment is furnished by stevedoring companies as required.		One adjustable passenger gangway extends from passenger terminal; cargo handling equipment is furnished by stevedoring companies as required.	None.
AILWAY CONNECTIONS	Port Everglades Railway: One surface track serves container freight station and open storage areas in rear; connects with Florida East Coast Railway and CSX Rail Transport.		Port Everglades Railway: One surface track serves container freight station and open storage areas in rear; connects with Florida East Coast Railway and CSX Rail Transport.	Port Everglades Railway: One surface track serves open storage areas in rear; connects with Florida East Coast Railway and CSX Rail Transport.
IGHWAY CONNECTIONS	Via S.E. 19th Court and Avenue, from S.E. 19th St., Eisenhower and Spangler Blvds, each paved, dual lane, each side 24-30 feet wide.		Via S.E. 20th St., Eisenhower and Spangler Blvds, each paved, dual lane, each side 24-30 feet wide.	Via S.E. 20th St., Eisenhower and Spangler Blvds, each paved, dual lane, each side 24-30 feet wide.
ATER SUPPLY (For Vessels)	Through 6-inch line with seven 2-inch metered hose connections.		Through 8-inch line with four 4-inch connections.	None.
ECTRIC CURRENT (For Vessels)	A.C. 110/208/480 volts.		None.	None.
IRE PROTECTION (Other Than City)	Port fire department, sprinkler systems in transit sheds, hydrants and security patrol.		Port fire department, sprinkler system in building, hydrants, and security patrol.	Port fire department, hydrants and security patrol.
EMARKS	Bunkering pipelines extend to each berth from nearby storage tanks (see Oil Handling and Bunkering Table, pages 94 and 95). One 20-truck capacity loading platform is located at the rear of each transit shed. At time of survey (1989), plans called for construction of a convention center at rear of transit sheds to include existing buildings.		Bunkering pipelines extend to each berth from nearby storage tanks (see Oil Handling and Bunkering Table, pages 94 and 95). One 20-truck capacity loading platform is located at the rear of container freight station. Two open storage areas with a total of 6.8 acres are located west of container freight station/passenger terminal.	Open storage areas described under Berth 4 (Ref. No. 5) are adjacent to wharf.

CORPS OF ENGINEERS PORT CODE NO.	14311 Dock Code No. 231		14311 Dock Code No. 237			14311 Dock Code No. 243		
REFERENCE NUMBER ON MAP NO. 3	7		8			9		
NAME	Port Everglades Authority, Berths 5 and 6.		Port Everglades Authority, Berths 7, 8, 8A, 9, and 10.			Port Everglades Authority, Berths 11, 12, 13, and 13A.		
LOCATION ON WATERFRONT	West shore of Lake Mabel, south side of and south of Slip No. 2, between foot of S.E. 22d Street and Spangler Boulevard. Foot of S.E. 22nd Street.		West shore of Lake Mabel, Slip No. 1, foot of Spangler Boulevard. Foot of Spangler Boulevard.			West shore of Lake Mabel, north of, north side of, and head of Slip No. 3, foot of S.E. 26th Street. Foot of S.E. 26th Street.		
OWNED BY	Port Everglades Authority.		Port Everglades Authority.			Port Everglades Authority.		
OPERATED BY	Port Everglades Authority.		Port Everglades Authority.			Port Everglades Authority.		
PURPOSE FOR WHICH USED	Receipt and shipment of conventional general cargo, steel, lumber and waste paper; receipt of asphalt and other petroleum products; shipment of crude oil; bunkering vessels.		Receipt of asphalt and other petroleum products; shipment of crude oil; bunkering vessels.			Receipt and shipment of petroleum products including liquefied petroleum gas; bunkering vessels.		
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkheads with asphalt-surfaced solid fill.		Concrete-capped, steel sheet pile bulkheads with asphalt-surfaced solid fill.			Concrete-capped, steel sheet pile bulkheads with asphalt-surfaced solid fill; fronted by rubber fender system along Berths 11, 12, and 13, and timber fenders along Berth 13A.		
DESCRIPTION	Berth 5	Berth 6	North side Berths 7-8	Berth 8A Head of slip	South side Berths 9-10	Berth 11	Berths 12-13	Berth 13
Dimensions (Feet)	900	378	1,200	300	1,200	500	1,226	302
Depth Alongside at MLW Do.	42	42	37	37	37	42	42	25
Breasting Distance Do.	900	378	1,200	300	1,200	500	1,226	291
Total Berthing Space Do.	900	378	1,200	300	1,200	500	1,226	291
Width of Apron Do.	32 and open.	30 and open.	Open.			Open.		
Height of Deck at MLW Do.	7		7			7		
Load Capacity (Lbs. per Sq. Ft.)	1,000		1,000			1,000		
Lighted or Unlighted	Lighted.		Lighted.			Lighted.		
TRANSIT SHEDS Number and Description	One - concrete frame, concrete walls; asphalt floor. Building No. 6		None.			None.		
Length and Width (Feet)	160 by 100							
Height Inside Do.	20							
Floor Area for Cargo (Sq. Ft.)	15,680							
Load Capacity (Lbs. per Sq. Ft.)	1,500							
Cargo Doors	Shipside: three; rear: two; west side: one. All 16 by 16							
MECHANICAL HANDLING FACILITIES	Equipment furnished by stevedoring companies.		Four 8-inch, swivel-jointed, pipeline unloading arms on each of the North and South sides.			Berth 11: One 6-inch, swivel-jointed, pipeline unloading arm with 4-inch return for handling liquefied petroleum gas. Berths 12 and 13: Four 8-inch swivel-jointed unloading arms.		
RAILWAY CONNECTIONS	None.		None.			None.		
HIGHWAY CONNECTIONS	Via road from Eisenhower and Spangler Blvds, each asphalt, dual lane, each side 24-30 feet wide.		Via road from Eisenhower and Spangler Blvds, each asphalt, dual lane, each side 24-30 feet wide.			Via road from Eisenhower and Spangler Blvds, each asphalt, dual lane, each side 24-30 feet wide.		
WATER SUPPLY (For Vessels)	Through 6-inch line with two 2-inch connections.		Through 6-inch line with nine 2-inch connections.			Through 6-inch line with 2-inch hose connections.		
ELECTRIC CURRENT (For Vessels)	None.		A.C. 110/220 volts.			A.C., 110/220 volts.		
FIRE PROTECTION (Other Than City)	Port fire department, hydrants, and security patrol.		Port fire department, hydrants, and security patrol.			Port fire department, hydrants, and security patrol.		
REMARKS	Pipelines extend from each berth to oil and asphalt storage tanks (see Oil Handling and Bunkering Table, pages 94 and 95). Approximately 2.8 acres of open storage area is located in rear.		Pipelines extend from each berth to oil and asphalt storage tanks (see Oil Handling and Bunkering Table, pages 94 and 95). Slip is equipped with an oil containment curtain to close off slip in case of emergency. Two sets of 2 1/2-ton each, small boat davits for deployment of oil spill containment vessel are located at head of slip (Berth 8A).			Pipelines extend from each berth to oil and asphalt storage tanks (see Oil Handling and Bunkering Table, pages 94 and 95). Slip is equipped with an oil containment curtain to be used in case of emergency. Water intake for Florida Power and Light Company's power plant is built into south portion of bulkhead at head of slip. The corporate boundary between the cities of Fort Lauderdale and Hollywood bisects slip.		

<table>
<tr><td>CORPS OF ENGINEERS PORT CODE NO.</td><td>14311 Dock Code No. 246</td><td>14311 Dock Code No. 249</td></tr>
<tr><td>EFERENCE NUMBER ON MAP NO. 3</td><td>10</td><td>11</td></tr>
<tr><td>AME</td><td>Port Everglades Authority, Berths 14 and 15.</td><td>Port Everglades Authority, Berths 16, 17, and 18.</td></tr>
<tr><td>LOCATION ON WATERFRONT</td><td>West shore of Lake Mabel, south side of Slip No. 3, foot of S.E. 26th Street.
Foot of S.E. 26th Street.</td><td>West shore of Lake Mabel, west side of south extension to turning basin, between foot of S.E 26th and S.E. 32nd Streets.
Foot of S.E. 30th Street.</td></tr>
<tr><td>NED BY</td><td>Port Everglades Authority.</td><td>Port Everglades Authority.</td></tr>
<tr><td>ERATED BY</td><td>Port Everglades Authority, Continental Cement Co. and Rinker Portland Cement Corp.</td><td>Port Everglades Authority.</td></tr>
<tr><td>URPOSE FOR WHICH USED</td><td>Receipt of cement and petroleum products; receipt and shipment of conventional general cargo; occasionally mooring cruise vessels and boarding passengers; bunkering vessels.</td><td>Receipt and shipment of containerized, conventional, and roll-on, roll-off general cargo in foreign and domestic trade; receipt of newsprint, vehicles and cement; bunkering vessels.</td></tr>
<tr><td>PE OF CONSTRUCTION</td><td>Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber fender system.</td><td>Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber fender system.</td></tr>
<tr><td>SCRIPTION</td><td>Face</td><td>Face</td></tr>
<tr><td>mensions (Feet)</td><td>1,226</td><td>1,648</td></tr>
<tr><td>pth Alongside at MLW Do.</td><td>37</td><td>37-40</td></tr>
<tr><td>easting Distance Do.</td><td>1,226</td><td>1,648</td></tr>
<tr><td>tal Berthing Space Do.</td><td>1,226</td><td>1,648</td></tr>
<tr><td>th of Apron Do.</td><td>Open.</td><td>Open.</td></tr>
<tr><td>ight of Deck at MLW Do.</td><td>8</td><td>8</td></tr>
<tr><td>d Capacity (Lbs. per Sq. Ft.)</td><td>1,000</td><td>1,000</td></tr>
<tr><td>hted or Unlighted</td><td>Lighted.</td><td>Lighted.</td></tr>
<tr><td>NSIT SHEDS ber and Description</td><td>One - concrete frame, concrete walls; asphalt floors.
Building No. 16</td><td>One - concrete frame, concrete walls; asphalt floor.
Building No. 18</td></tr>
<tr><td>gth and Width (Feet)</td><td>300 by 300</td><td>300 by 300</td></tr>
<tr><td>ght Inside Do.</td><td>20</td><td>20</td></tr>
<tr><td>or Area for Cargo (Sq. Ft.)</td><td>83,600</td><td>83,940</td></tr>
<tr><td>d Capacity (Lbs. per Sq. Ft.)</td><td>1,500</td><td>1,500</td></tr>
<tr><td>o Doors</td><td>Shipside: four 16- and one 20- by 16 1/2; Sides: five 16 by 16 1/2.</td><td>Shipside: two 22 by 16 1/2; rear: two 16 by 16 1/2; each side: two 16 by 16 1/2 and one 22 by 16 1/2.</td></tr>
<tr><td>ANICAL HANDLING FACILITIES</td><td>Continental Cement Co.: One electric pneumatic traveling gantry bulk cement unloader, equipped with a 48-inch auger conveyor boom; served by a 48-inch auger conveyor extending to storage silos in rear; rate 600 tons per hour, average, 800 tons per hour maximum. General cargo handling equipment is furnished by stevedoring companies.</td><td>Three diesel-electric, traveling, container-handling cranes, each with hinged-cantilevered boom, travel length 1,500 feet along wharf:
<table>
<tr><th>Lift capacity (Long Tons)</th><th>Outboard reach (feet)</th><th>Back reach (feet)</th><th>Container travel (feet)</th><th>Maximum Clear Hoist (feet)</th></tr>
<tr><td>50</td><td>113</td><td>40</td><td>225</td><td>92</td></tr>
<tr><td>30</td><td>103</td><td>40</td><td>215</td><td>81</td></tr>
<tr><td>30</td><td>103</td><td>40</td><td>215</td><td>81</td></tr>
</table>
Handling rate is approximately 40 containers per hour each. Additional handling equipment is furnished by stevedoring companies.</td></tr>
<tr><td>AY CONNECTIONS</td><td>Port Everglades Railway: One surface track serves cement storage silos at rear; connects with Florida East Coast Railway and CSX Rail Transport.</td><td>Port Everglades Railway: One surface track serves cement storage silos at rear of Berth 17; connects with Florida East Coast Railway and CSX Rail Transport.</td></tr>
<tr><td>AY CONNECTIONS</td><td>Via road from Eisenhower and Spangler Blvds, each asphalt, dual lane, each side 24-30 feet wide.</td><td>Via S.E. 28th Street, asphalt, 30 feet wide, from Eisenhower and Spangler Blvds, each asphalt, dual lane, each side 24-30 feet wide.</td></tr>
<tr><td>SUPPLY (For Vessels)</td><td>Through 6- and 8-inch lines with 2-inch connections.</td><td>Through 8-inch line with 2-, 4-, and 8-inch connections.</td></tr>
<tr><td>RIC CURRENT (For Vessels)</td><td>A.C., 110/220/480 volts.</td><td>A.C., 110/220 volts.</td></tr>
<tr><td>ROTECTION r Than City)</td><td>Port fire department, hydrants, and security patrol.</td><td>Port fire department, hydrant, standpipe, hose stations, hand extinguishers, and security patrol.</td></tr>
<tr><td>S</td><td>Pipelines extend from each berth to oil storage tanks (see Oil Handling and Bunkering Table, page 77). Transit shed also serves Berth No. 16 (Ref. No. 11). Continental Cement Co.: Four 10-inch pipelines extend from Berth No. 14 to 12 silos and 6 interstices, located at terminal at rear, total capacity 30,000 tons. Rinker Portland Cement Corp.: Four 12-inch pipelines extend from Berth 15 to 12 cement silos in rear, total capacity 49,500 tons.</td><td>Pipelines extend from each berth to oil storage tanks (see Oil Handling and Bunkering Table, page 77). Container Yard No. 1 at rear has capacity for approximately 1,330 40-foot containers on chassis, including 70 positions for refrigerated loads or 3,300 containers stacked 3-high. A 90-foot wide ramp at elevation 4.0 is built into adjacent Berth 19 for handling roll-on, roll-off cargo via stern ramps of vessels berthed at Berth 18. Rinker Portland Cement Corp.: Four 12-inch pipelines extend from Berth 17 to storage facilities described under Ref. No. 10.</td></tr>
</table>

best copy available

CORPS OF ENGINEERS PORT CODE NO.	14311 Dock Code No. 270	14311 Dock Code No. 274		14311 Dock Code No. 288	
REFERENCE NUMBER ON MAP NO. 3	12	13		14	
NAME	Port Everglades Authority, Berths 19 and 20.	Port Everglades Authority, Berths 21, 22, 24, and 25.		Port Everglades Authority, Berths 2 and 27.	
LOCATION ON WATERFRONT	West shore of Lake Mabel, south side of south extension to turning basin, between foot of S.E 26th and S.E. 32nd Streets. Foot of S.E. 32nd Street.	West shore of Lake Mabel, east side of turning basin; and west side of Atlantic Intracoastal Waterway. Foot of Eller Drive.		Mile 1067.3, west side of Atlantic Intracoastal Waterway, approximately 0.6 mile south of Port Everglades entrance channel. Foot of Eller Drive.	
OWNED BY	Port Everglades Authority.	Port Everglades Authority.		Port Everglades Authority.	
OPERATED BY	Port Everglades Authority.	Port Everglades Authority		Port Everglades Authority and Port Everglades Towing Co., Division of Hvide Shipping, Inc.	
PURPOSE FOR WHICH USED	Mooring naval and cruise vessels, boarding passengers, and occasional receipt and shipment of conventional, and roll-on, roll-off genal cargo in foreign and domestic trade.	Boarding passengers; occasional receipt of lumber, mooring naval and cruise vessels; bunkering vessels.		Boarding passengers; occasional receipt of newsprint, lumber and steel. Mooring cruise vessels and harbor tugs; bunkering vessels.	
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber fender system.	Concrete-capped, steel sheet pile bulkheads with asphalt-surfaced solid fill; fronted by rubber fender system.		Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber fender system.	
DESCRIPTION	Face	West side Berths 21 & 22	East side Berths 24 & 25	Face	South side
Dimensions (Feet)	1,300	1,325	1,368	1,336	484
Depth Alongside at MLW Do.	34-37	34	38	38	25
Breasting Distance Do.	1,300	1,325	1,368	1,336	484
Total Berthing Space Do.	1,300	1,325	1,368	1,336	484
Width of Apron Do.	100 and open.	33 and open.	33 and open.	Open.	
Height of Deck at MLW Do.	8	8	8	8	2
Load Capacity (Lbs. per Sq. Ft.)	700	900		800	
Lighted or Unlighted	Lighted.	Lighted.		Lighted.	
TRANSIT SHEDS Number and Description	One - concrete frame; combination passenger terminal and transit shed. Building No. 19	None. (See Remarks)		One - concrete frame; combination passenger terminal and transit shed. Building No. 26	
Length and Width (Feet)	300 by 300			740 by 120	
Height Inside Do.	20			22	
Floor Area for Cargo (Sq. Ft.)	50,000, approx.			80,000 (cargo)	
Load Capacity (Lbs. per Sq. Ft.)	1,500			800	
Cargo Doors	Shipside: two, 22 by 16 1/2. Rear: Two, 16 by 16 1/2. Each side: two, 16 by 16 1/2 and one 22 by 16 1/2.			Shipside: eleven, 16 by 18. Rear: Ten, 10 by 12 to platform.	
MECHANICAL HANDLING FACILITIES	One adjustable passenger gangway extends from passenger terminal; cargo handling equipment is furnished by stevedoring companies as required.	One adjustable passenger gangway extends from each of 3 passenger terminals located at rear of Berths 21, 22, and 24. Naval ships moor at Berth 25.		One adjustable passenger gangway extends from passenger terminal; cargo handling equipment is furnished by stevedoring companies as required.	
RAILWAY CONNECTIONS	None.	None.		None.	
HIGHWAY CONNECTIONS	Via S.E. 32nd Street, asphalt, 30 feet wide, from Eisenhower and Spangler Blvds, each asphalt, dual lane, each side 24-30 feet wide.	Via Eller Drive, from Federal Highway (U.S. Highway No. 1), each asphalt, 40-50 feet wide.		Via Eller Drive, from Federal Highway (U.S. Highway No. 1), each asphalt, 40-50 feet wide.	
WATER SUPPLY (For Vessels)	Through 12-inch line with seven 4- and one 8-inch connections.	Through 8-inch line with two 4-inch connections at each berth.		Through 8-inch line with two 2- and four 4-inch connections.	
ELECTRIC CURRENT (For Vessels)	A.C., 110/220 volts.	A.C., 110/220 volts.		A.C., 220 volts.	
FIRE PROTECTION (Other Than City)	Port fire department, hydrant, standpipe, hose stations, hand extinguishers, and security patrol.	Port fire department, hydrant, standpipe, hose stations, hand extinguishers, and security patrol.		Port fire department, hydrant, standpipe, hose stations, hand extinguishers, and security patrol.	
REMARKS	Pipelines extend from each berth to oil storage tanks (see Oil Handling and Bunkering Table, pages 94 and 95). Container Yard No. 2 at rear has capacity for approximately 730, 40-foot containers on chassis, including 22 positions for refrigerated loads. A 60-foot wide ramp at elevation 4.0 is built into adjacent Berth 18 intended for stern handling roll-on, roll-off cargo via ramps of vessels berthed at Berth 19. A parking lot for 400 cars is located at rear of Berth 20.	Pipelines extend from each berth to oil storage tanks (See Oil Handling and Bunkering Table, page 94 and 95). Separate passenger terminals are located at rear of Berths 21, 22, and 24. Berth 25 is used for mooring naval vessels and occasionally for receipt of lumber.		Pipelines extend from each berth to oil storage tanks (See Oil Handling and Bunkering Table, pages 94 and 95). Cruise terminal is located at rear of Berth 26, transit shed at rear of Berth 27. Approximately 2 acres of open storage area is located at rear. Port Everglades Towing Co. moors harbor tugs *Fort Lauderdale, Everglades,* and *Hollywood* and maintains tug dispatch office in building at rear of south side.	

PS OF ENGINEERS PORT CODE NO.	14311 Dock Code No. 291			14311 Dock Code No. 295
ERENCE NUMBER ON MAP NO. 3	15			16
E	Port Everglades Authority, Mid-town Basin and Pier, Berth 28.			Port Everglades Authority, Berth 29.
CATION ON WATERFRONT	Mile 1067.5, west side of Atlantic Intracoastal Waterway, approximately 0.7 mile south of Port Everglades entrance channel. Foot of Eller Drive.			Mile 1067.6, west side of Atlantic Intracoastal Waterway, approximately 0.8 mile south of Port Everglades entrance channel. Foot of S.E. 35th Street.
ED BY	Port Everglades Authority.			Port Everglades Authority.
RATED BY	Port Everglades Authority.			Port Everglades Authority.
POSE FOR WHICH USED	Occasional handling of roll-on, roll-off general cargo; mooring oceanographic research vessels and miscellaneous craft.			Receipt of steel, lumber, and newsprint; shipment of scrap metal.
E OF CONSTRUCTION	Basin formed by concrete-capped, steel sheet pile bulkheads, solid fill, with concrete pile, prestressed concrete-decked pier extending from center portion of west side; pier is fronted by timber and rubber tire fenders.			Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber fenders.
CRIPTION	West Face	South Face	Pier	Face
ensions (Feet)	550	403	350 by 20	2,000
h Alongside at MLW Do.	32	32	32	42
sting Distance Do.	550	403	700	2,000
l Berthing Space Do.	550	403	700	2,000
h of Apron Do.	Open.		20	Open.
ht of Deck at MLW Do.	9	9	9	10
Capacity (Lbs. per Sq. Ft.)	-			1,000
ted or Unlighted	Lighted.			Lighted.
IT SHEDS er and Description	None.			None, at time of survey, a steel frame metal-covered structure was planned.
h and Width (Feet)				-
t Inside Do.				-
Area for Cargo (Sq. Ft.)				60,000
Capacity (Lbs. per Sq. Ft.)				-
Doors				-
NICAL HANDLING FACILITIES	Cargo handling equipment is furnished by stevedoring companies as required.			Portable conveyors and other cargo handling equipment is furnished by stevedoring companies as required.
AY CONNECTIONS	None.			None.
AY CONNECTIONS	Via driveway from Eller Drive, and Federal Highway (U.S. Highway No. 1), each asphalt, 40-50 feet wide.			Via S.E. 19th Avenue from Eller Drive, and Federal Highway (U.S. Highway No. 1), each asphalt, 40-50 feet wide.
SUPPLY (For Vessels)	Through 8-inch line with 2-inch connections.			Through 8-inch line with three 2-inch connections.
IC CURRENT (For Vessels)	A. C., 120/240/480 volts.			None.
ROTECTION Than City)	Port fire department, hydrant, standpipe, hose stations, hand extinguishers, and security patrol.			Port fire department, hydrant, hand extinguishers, and security patrol.
S	Vessels berthed at pier handle roll-on, roll-off general cargo via stern ramp onto bulkhead.			Approximately 21 acres of paved open storage area is located at rear.

CORPS OF ENGINEERS PORT CODE NO.	14311 Dock Code No. 297		14311 Dock Code No. 299	
REFERENCE NUMBER ON MAP NO. 3	17		18	
NAME	Port Everglades Authority, Southport Container Wharf, Berths 31 and 32.		Port Everglades Authority, Southport Container Wharf, Berth 33.	
LOCATION ON WATERFRONT	Mile 1068.2, west side of Atlantic Intracoastal Waterway, approximately one mile south of Port Everglades entrance channel. McIntosh Road.		Mile 1068.3, west side of Atlantic Intracoastal Waterway, approximately one mile south of Port Everglades entrance channel. McIntosh Road.	
OWNED BY	Port Everglades Authority.		Port Everglades Authority.	
OPERATED BY	Port Everglades Authority.		Crowley Maritime Corp.	
PURPOSE FOR WHICH USED	Receipt and shipment of containerized general cargo in foreign and domestic trade; bunkering vessels (see Remarks).		Receipt and shipment of roll-on, roll-off general cargo in foreign and domestic trade; bunkering vessels (see Remarks).	
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber fender system.		Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber fender system. An L-shaped 180-foot wide pier of similar construction extends from south end of wharf for accommodation of vessels' stern ramps.	
DESCRIPTION	Face	North side	Face	L-shaped ramp
Dimensions (Feet)	2,000	1,000	810	140+95+190
Depth Alongside at MLW Do.	42	42	42	42
Breasting Distance Do.	2,000	–	810	140 & 190
Total Berthing Space Do.	2,000	–	810	140 & 190
Width of Apron Do.	Open.		Open.	
Height of Deck at MLW Do.	10		10	
Load Capacity (Lbs. per Sq. Ft.)	1,000		1,000	
Lighted or Unlighted	Lighted.		Lighted.	
CONTAINER FREIGHT STATIONS Number and Description	One – steel frame, concrete walls; asphalt floor. Building 109		Use of container freight station described under Ref. No. 17.	
Length and Width (Feet)	400 by 100			
Height Inside Do.	20			
Floor Area for Cargo (Sq. Ft.)	33,000			
Load Capacity (Lbs. per Sq. Ft.)	1,000			
Cargo Doors	Total, 90 truck stations.			
MECHANICAL HANDLING FACILITIES	At time of survey (1989), plans called for installation of three 50-ton capacity, diesel-electric, traveling, container-handling cranes, each with hinged-cantilevered boom, having 142-foot outboard- and 35-foot back-reach. Cranes travel full length of wharf continuing to serve adjacent wharf Berth 33 (Ref. No. 18).		Use of container cranes serving adjacent Berth No. 32 (Ref. No. 17).	
RAILWAY CONNECTIONS	Port Everglades Railway: Plans called for construction of a 7.9 acre, intermodal container transfer facility (ICTF) to connect with Florida East Coast Railway and CSX Rail Transport.		Port Everglades Railway: Plans called for construction of a 7.9 acre, intermodal container transfer facility (ICTF) to connect with Florida East Coast Railway and CSX Rail Transport.	
HIGHWAY CONNECTIONS	Via McIntosh Road from Eller Drive, and Federal Highway (U.S. Highway No. 1), each asphalt, 40-50 feet wide.		Via McIntosh Road from Eller Drive, and Federal Highway (U.S. Highway No. 1), each asphalt, 40-50 feet wide.	
WATER SUPPLY (For Vessels)	Through 12-inch line with 2- and 4-inch connections.		Through 12-inch line with 2- and 4-inch connections.	
ELECTRIC CURRENT (For Vessels)	A. C., 110 volts.		A. C., 110 volts.	
FIRE PROTECTION (Other Than City)	Port fire department, hydrant, hose stations, hand extinguishers, and security patrol.		Port fire department, hydrant, hose stations, hand extinguishers, and security patrol.	
REMARKS	At time of survey (1989), entire terminal was under construction and is described as planned. North bulkhead forms side of an 18-acre rectangular turning basin. Pipelines extend from each berth to oil storage tanks (see Oil Handling and Bunkering Table, pages 94 and 95). Container storage area at rear of Berth 31 has capacity for approximately 2,100 40-foot containers, stacked.		At time of survey (1989), entire terminal was under construction and is described as planned. A temporary roll-on, roll-off facility consisting of two 235- by 45-foot deck barges occupied the site. Vessels berth 3-abreast at wharf, and inner vessel can be served by container cranes as well as by the roll-on, roll-off ramp. Pipelines extend from each berth to oil storage tanks (see Oil Handling and Bunkering Table, pages 94 and 95) Container storage area at rear of Berth 33 extends to the rear of Berth 32 and has capacity for approximately 2,100 40-foot containers on chassis.	

OIL HANDLING AND BUNKERING

Five of the waterfront facilities comprising 11 berths are equipped to handle crude oil and various petroleum products. Fifteen facilities comprising 29 berths provide bunkering service to ships at berth via pipeline.

The table on the following page describes these facilities including number and size of the pipelines, and the number and capacities of the storage tanks serving the various berths.

DRY BULK HANDLING

Cement is received at 2 of the wharves in the port area. A summary tabulation of the cement handling capabilities of the facilities is given below. More detailed information may be found in the table of Piers, Wharves, and Docks, beginning on page 86.

P.W.D. REF. NO.	OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	HANDLING EQUIPMENT TYPE/RATE (TONS/HOUR)	STORAGE CAPACITY
10	Rinker Portland Cement Corp.	1,226	37	Gantry crane with screw conveyor (600); pneumatic pipelines.	49,500 tons (silos)
	Continental Cement Co.	-	-		30,000 tons (silos)
11	Rinker Portland Cement Corp.	1,648	37	Pneumatic pipelines.	See above.

WAREHOUSES

Six transit sheds owned by the Port Everglades Authority as described under P.W.D. Ref. Nos. 4, 7, 10, 11, and 12, and included in the summary of general cargo facilities on page 85 are available to the public for long-term or transit storage of cargo as required. These buildings have a total of 331,220 square feet of net storage space.

The Port Everglades Authority operates the Foreign Trade Zone No. 25 which contains 140,000 square feet in two buildings, and secured open storage area of 12 acres.

In addition to the above facilities, warehouses in close proximity to the port have a total of 75,000 square feet of dry storage space and 2,360,000 cubic feet of freezer and 406,000 cubic feet of cooler space available to the public. The warehouses are more fully described in the table on pages 96 and 97.

Two of the warehouses and two of the transit sheds have direct rail connections and all have access to arterial highways. Diversified-handling equipment is maintained by the private warehouse operators and most provide special services including packing, crating, forwarding, blast freezing, and pool car distribution.

The operators listed represent largely the respondents to a mailed questionnaire as time restrictions precluded complete field gathering of information.

OIL HANDLING AND BUNKERING

COMPANY	P.W.D. REF. NO.	BERTH NO.	PIPELINE CONNECTIONS	STORAGE TANKS	
				NUMBER	CAPACITY (BARRELS)
Amerada Hess Corp.	7	5	One 12-inch.	4	320,150
Amoco Oil Co.	8,9	9,10,13	Three 12-inch serve each berth.	7	479,550
BP Oil Co.	9	9–13	Two 16-, one 14-, one 12-, one 10-, one 8-, and one 6-inch serve each berth.	17	610,500
Central Oil & Asphalt Corp.	4	26–27	One 10- and one 8-inch.	6(2)	6,950
Champlin Refining Co.	8,9	7,9,13	[Common use with Unocal Corp.]	4	148,000
Chevron U.S.A., Inc.	8,9	9,13	Two 12- and three 8-inch serve each berth.	27	699,100
Citgo Petroleum Corp.	8	7,9	Three 12- and one 14-inch.	10	590,000
	9	13	Three 12- and one 14-inch.		
Coastal Fuels Marketing, Inc. (Bunkering vessels by pipeline excluding slip heads and Berth No. 23)	4	1,2,3	One 10- and one 6-inch serve each berth.	31(2)	2,389,332
	5	4	One 10- and one 6-inch.		
	7	5	One 24-, one 16-, three 12-, two 10-, one 8-, and one 6-inch.		
	7	6	One 6- and one 10-inch join company's pipelines serving Berth No. 5		
	8	7	Three 12-, three 10-, and one 6-inch join 24-inch pipeline serving Berth No. 5.		
	8	8	Two 12-, two 10-, and one 8-inch joins company's pipelines.		
	8	9	One 10-, one 8-, and one 6-inch.		
	9	12,13	One 8- and one 6-inch serve each berth.		
	9–13	12–24	One 10- and one 6-inch serve each berth.		
Exxon Company, U.S.A.	5,7,8	4,5,7	Three 12- and one 8-inch serve each berth.	12	606,300
Fina Oil and Chemical Co.	8,9	7,9,13	Two 10- and two 8-inch serve each berth.	4	173,000

OIL HANDLING AND BUNKERING (Cont.)

COMPANY	P.W.D. REF. NO.	BERTH NO.	PIPELINE CONNECTIONS	STORAGE TANKS	
				NUMBER	CAPACITY (BARRELS)
Gulf Interstate Service Co.	9,10	13,15	Three 12-inch serve each berth.	8(1)	892,000
Marathon Oil Co.	5,7 8	4,5 8	Two 12- and two 8-inch serve each berth. One 12-inch joins company's pipelines serving Berth Nos. 4 and 5.	11	428,050
Mobil Oil Corp.	8,9	9,13	Two 12-inch serve each berth. (One is in common use with Star Enterprise, Inc.)	8	445,600
				3	101,250
Phillips Pipe Line Co.	8,9	9,13	One 12- and one 10-inch serve each berth.	7	360,000
Shell Oil Co.	7,8	5,7	Three 12-, one 8-, and one 6-inch serve each berth.	8	544,550
Star Enterprise, Inc.	8,9	9,13	One 14-, one 12-, and one 10-inch. One 12-inch and additional tankage common with Mobil Oil Corp. (See Above.)	8	494,000
Trumbull, Division of Owens-Corning Fiberglas Co.	7,8	5,8	One 12-inch insulated.	6(2)	171,700
Unocal Corp.	8,9	9,13	Uses same lines as Fina Oil and Chemical Co. and additional common tankage (see above).	3	154,000
Warren Petroleum Co., a division of Chevron U.S.A., Inc.	9	11	Two 8- and one 6-inch.	58(3)	41,430
			TOTAL..........	232	9,564,800

(1) Fuel oil handled for Florida Power and Light Co.
(2) Asphalt.
(3) Horizontal pressure tanks for liquefied petroleum gas.

STORAGE WAREHOUSES

WAREHOUSE REF. NO.	1		2	
OPERATOR AND ADDRESS	Condyne Freezers, Inc. 3205 S.E. 19th Avenue Port Everglades, FL 33316		Port Everglades Foreign Trade Zone No. 25. P. O. Box 13136 Port Everglades, FL 33316	
BUILDING DESIGNATION/S	-		Building A and Building B	
LOCATION	3205 S.E. 19th Avenue Port Everglades, FL 33316		3400 McIntosh Road Port Everglades, FL 33316	
KIND OF STORAGE	Cold.		Dry.	
COMMODITIES USUALLY STORED	Perishable food commodities.		General merchandise.	
DESCRIPTION Type of Construction	Steel frame, masonry walls, concrete floor.		Two buildings, each. Steel frame, concrete walls, concrete floor.	
Number of Floors	One.		One, each.	
Clear Height for Storage (Feet):				
First Floor....................	8-10		20, each	
Other Floors....................	-		-	
Load Capacity (Lbs/Sq.Ft.):				
First Floor....................	Unlimited.		Unlimited.	
Other Floors....................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	BUILDING A DRY STORAGE	BUILDING B COLD STORAGE
General Storage.......(Sq.Ft.)			110,000	30,000
U.S. Customs Bonded...(Sq.Ft.)	-	Available.	-	-
Cooler Space..........(Cu.Ft.)	-	306,000	-	-
Freezer Space.........(Cu.Ft.)	-	1,800,000	-	-
Convertible Space.....(Cu.Ft.)	-	-	-	-
RAILWAY CONNECTIONS	None.		None. (See Remarks.)	
TRUCKLOADING STATIONS	Twelve, air-sealed, refrigerated.		Twenty, each building.	
HANDLING EQUIPMENT	Equipment available as required.		Equipment furnished by tenants as required.	
FIRE PROTECTION	Automatic fire detection system and hand extinguishers.		Automatic fire detection and sprinkler system, and watchmen.	
REMARKS	Two-stage ammonia refrigeration system. Temperatures in the freezer and cooler sections are maintained at -10°F and 42°F, respectively.		At time of survey, a railway siding was to be constructed. Foreign Trade Zone was assigned 82 acres with 30 acres presently developed, including 12 acres of secured, lighted open storage area.	

STORAGE WAREHOUSES

WAREHOUSE REF. NO.	3		4	
OPERATOR AND ADDRESS	A & A Warehousing Corp. 4200 North 29th Terrace Hollywood, FL 33020		Condyne Freezers, Inc. 3200 S.W. 2nd Avenue Fort Lauderdale, FL 33315	
BUILDING DESIGNATION/S	-		-	
LOCATION	4200 North 29th Terrace Hollywood, FL 33020		3220 S.W. 2d Avenue Fort Lauderdale, FL 33315	
KIND OF STORAGE	Dry.		Cold.	
COMMODITIES USUALLY STORED	General merchandise.		Perishable food commodities.	
DESCRIPTION Type of Construction	Steel frame, masonry walls, concrete floor.		Concrete block walls; concrete floors.	
Number of Floors	One.		One.	
Clear Height for Storage (Feet):				
First Floor..................	21		18.5	
Other Floors..................	-		-	
Load Capacity (Lbs/Sq.Ft.):				
First Floor..................	Unlimited.		Unlimited.	
Other Floors..................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General Storage.......(Sq.Ft.)	75,000	-	-	-
U.S. Customs Bonded...(Sq.Ft.)	-	-	-	Available.
Cooler Space..........(Cu.Ft.)	-	-	-	100,000
Freezer Space.........(Cu.Ft.)	-	-	-	-
Convertible Space.....(Cu.Ft.)	-	-	-	560,000
RAILWAY CONNECTIONS	One 3-car capacity, platform-level track connects with CSX Rail Transport.		One 4-car capacity, carfloor-level track along east side connects with Florida East Coast Railway.	
TRUCKLOADING STATIONS	Sixteen.		Total 10 at two platforms.	
HANDLING EQUIPMENT	One- to 5-ton, LP-gas, forklift trucks.		One 2- and one 1 3/4-ton, electric, forklift trucks, and one 2-ton, electric, low-level transporter.	
FIRE PROTECTION	Automatic fire detection and sprinkler system, and hand extinguishers.		Hand extinguishers.	
REMARKS	-		-	

OPEN STORAGE

In addition to the long- and short-term, covered storage facilities for waterborne cargo, there are 9 locations providing open storage areas for containerized and/or conventional general cargo not requiring protection from the elements, all of which are owned by the Port Everglades Authority. These storage areas are shown in the Summary of General Cargo Facilities on page 85.

HOISTING EQUIPMENT - ASHORE AND AFLOAT

Conventional general cargo is usually handled to and from vessels by ships' tackle. However, crawler and mobile cranes are available to the public from several crane rental services within the immediate area of Port Everglades, or the greater Miami metropolitan area. One company stationed within the port area has the following hoisting facilities for hire:

Eller & Company, Inc., P. O. Box 13133, Port Everglades, Florida 33316.

One 70- and one 20-ton, diesel, mobile crane, with 120- and 65-foot telescopic boom, respectively.

One 300- and one 155-ton, diesel, mobile crane with 160- and 140-foot boom, respectively.

One 26-ton, container-handling, diesel forklift truck.

No floating cranes or derricks for making heavy lifts at shipside are based at the port.

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT

There are no facilities available for making repairs, drydocking, or hauling out large deep-draft vessels at Port Everglades. The nearest facilities for drydocking such craft are at Jacksonville, Florida, and are described in Port Series No. 15, titled "The Ports of Jacksonville and Fernandina Beach, Florida," last revised in 1986.

A number of companies performing various types of marine repair work are located in the Miami area and are described in the table beginning on page 66.

FLOATING EQUIPMENT

Port Everglades Towing, Inc., Division of Hvide Shipping, Inc., P. O. Box 13038, Fort Lauderdale, Florida 33316, performs towing, docking, and undocking services for vessels at the Port of Port Everglades. This company (P.W.D. Ref. No. 14) operates the following diesel-powered tugs:

NAME	DIMENSIONS OVERALL LENGTH (FEET)	WIDTH (FEET)	DRAFT UNDER LOAD (FEET)	HORSEPOWER
Everglades	89	24.8	11.8	2,100
Fort Lauderdale	90	32.3	15.4	4,290
Broward	105	32.0	17.5	3,300
Captain Nelson	89	24.8	11.8	2,100

Additional information on floating equipment can be obtained from the publication "Waterborne Transportation Lines of the United States" which is described on page 65.

RAIL LINES

The Port Everglades Railway is owned by the Port Everglades Authority and is operated and maintained by CSX Rail Transport. The railroad serves the port's waterfront facilities and connects with the Florida East Coast Railway and CSX Rail Transport.

PORT OF PALM BEACH, FLORIDA

PORT AND HARBOR CONDITIONS

LOCATION AND GENERAL DESCRIPTION

The Port of Palm Beach is on the west side of Lake Worth within the community of Riviera Beach, Florida. The deepwater approach from the Atlantic Ocean is via a 1.6- mile long dredged channel extending through Lake Worth Inlet and across the lake to a turning basin generally rectangular in shape. The port is 68 nautical miles north of the Port of Miami and 259 nautical miles south of Jacksonville.

Lake Worth, a coastal lagoon about 20 miles long and 1/4 to 1 1/4 miles wide, is separated from the ocean by a barrier strip of land; the City of Palm Beach is located on this barrier strip south of Lake Worth Inlet. The route of the Atlantic Intracoastal Waterway runs through Lake Worth and across the turning basin, adjacent to the Port of Palm Beach wharves.

The waterfront facilities at the port are located on two large slips and adjacent property along the west sides of the turning basin and turning basin extension to the north.

The majority of the waterfront facilities at Palm Beach handle containerized, roll-on roll-off, and/or conventional general cargo. In addition, automobiles, steel, cement, sugar, and molasses are handled extensively and a passenger terminal serves an expanding trade.

HARBOR AND CHANNEL IMPROVEMENTS BY THE UNITED STATES

The existing project, authorized by the River and Harbor Act of July 14, 1960 (House Document 283, 86th Congress, 1st Session) and by prior acts, provides for the following work:

> An entrance channel 35 feet deep, 400 feet wide, and 0.8 mile long, merging with an inner channel 33 feet deep, 300 feet wide, and 0.3 mile long, thence flaring into a turning basin, generally rectangular in shape, 1,400 feet north-south along the side next to the berthing area by a minimum of 1,200 feet east-west; maintenance of the north turning basin extension to 25-foot depth; removing the obstructive point on the south side of Lake Worth Inlet; and restoring the existing jetties and shore revetments at the inlet.

The jetties at the entrance to the inlet were constructed by local interests and consist of two parallel rubble-stone structures, 800 feet apart; the north jetty and revetment is about 1,800 feet long, and the south jetty is about 1,700 feet long. Length of the project is 1.6 miles.

All depths refer to the plane of mean low water which is 1.66 feet below mean sea level. Controlling depths as of February 1988 were:

33.0 feet in the entrance channel;
33.0 feet in the inner channel;
33.0 feet in the turning basin; and
25.0 feet in north extension of turning basin.

The conditions of local cooperation have been fulfilled. Local interests originally extended the turning basin 672 feet to the north with a flared entrance widening, all to a depth of 25 feet. Maintenance of this work has been incorporated into the Federal project.

TIDES AND CURRENTS

The mean range of tide is 2.8 feet at the inlet and 2.6 feet at the Port of Palm Beach wharves. Extreme range of tide is about 4.5 feet at the inlet and 3 feet at the wharves; 7-foot tidal ranges have occurred during storms. The currents in the inlet are strong and must be carefully guarded against; normal current velocity is 2.4 knots on the flood and 3.6 knots on the ebb.

ANCHORAGES

There is no deepwater anchorage in the harbor. Vessels may find temporary anchorage north or south of the sea buoy clear of the entrance range. Anchorage for craft drawing up to 8 feet is available in the vicinity of the City of Palm Beach.

BRIDGES

No bridges cross the entrance channel or Palm Beach harbor.

WEATHER CONDITIONS

Because of its southerly location and marine influences, the Palm Beach area has a notably equable climate. The Gulf Stream flows northward about 3 miles offshore, this being its nearest approach to the Florida coast. Cold continental air must either travel over water or flow down the Florida Peninsula to reach the area, and in either case, its cold is appreciably modified. The frequency of temperatures as low as the freezing mark is about one per three years along the coast, but in the farmlands farther inland, the frequency of light freezes is considerably higher.

Summer temperatures are tempered by the ocean breeze, and by the frequent formation of cumulus clouds, which shade the land somewhat, without completely obscuring the sun. Temperatures of 89°F or higher have occurred in all months of the year, but the 100 degree mark has been recorded only once. August is the warmest month and has an average maximum temperature of about 91°F. The occurrence of 90°F temperatures in August is so common that such can be expected on more than two-thirds of the days; however, temperatures as high as 96°F are so rare that occurrences average less than two days per August.

The moist, unstable air in this area results in frequent showers, usually of short duration with thunderstorms occurring on an average of every other day during the summer. Rainfall is heaviest during the summer and fall, the fall rainfall average being "loaded" with occasional heavy rains accompanying the passage of tropical disturbances. The cleanness of the air, with no taint of industrial smoke, results in an almost complete absence of fog, heavy fog occurring on an average of only one morning a month in the winter and spring, and almost never in the summer and fall.

The following information was compiled by the National Weather Service Office at Palm Beach International Airport and was published by the Environmental Data and Information Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

METEOROLOGICAL DATA FOR PERIOD OF RECORD

TIME	NORMAL DAILY TEMPERATURE F°		NORMAL TOTAL PRECIPITATION (INCHES)	PREVAILING DIRECTION OF WINDS	HEAVY FOG* (DAYS)
	MAXIMUM	MINIMUM			
No. of years	30	30	45	30	45
January......	74.5	55.9	2.71	NW	1.6
February.....	75.3	56.2	2.62	SE	1.1
March........	79.3	60.8	2.69	SE	1.0
April........	82.5	65.1	3.21	E	1.0
May..........	85.7	69.5	6.02	ESE	0.2
June.........	88.1	72.7	7.92	ESE	0.2
July.........	89.7	74.2	6.06	ESE	0.*
August.......	90.1	74.8	5.78	ESE	0.1
September....	88.4	74.3	9.29	ENE	0.2
October......	84.4	70.1	7.77	ENE	0.4
November.....	79.6	63.5	3.39	ENE	0.6
December.....	75.7	58.2	2.26	NNW	1.2
Year	82.8	66.3	59.72	ESE	7.6

PORT OF PALM BEACH, BERTH NO. 1
(P.W.D. Ref. No. 1)

GANTRY LOADER FOR SHIPMENT OF SUGAR AT
PORT OF PALM BEACH, BERTHS NOS. 2 AND 3
(P.W.D. Ref. No. 2)

PORT OF PALM BEACH, SLIP NO. 2,
BERTHS NOS. 2 THROUGH 6
(P.W.D. Ref. Nos. 2, 3, and 4)

PORT OF PALM BEACH, BERTHS NOS. 5 AND 6
(P.W.D. Ref. No. 4)

CEMENT STORAGE BUILDING (IN FOREGROUND) AND
TRANSIT SHED SERVING PORT OF PALM BEACH
BERTHS NOS. 5 THROUGH 9
(P.W.D. Ref. Nos. 4, 5, and 6)

PORT OF PALM BEACH, BERTHS NOS. 8 AND 9
(P.W.D. Ref. No. 6)

PORT OF PALM BEACH, ROLL-ON ROLL-OFF BERTHS 10, 11, AND 12 AT HEAD OF SLIP NO. 1
(P.W.D. Ref. No. 7)

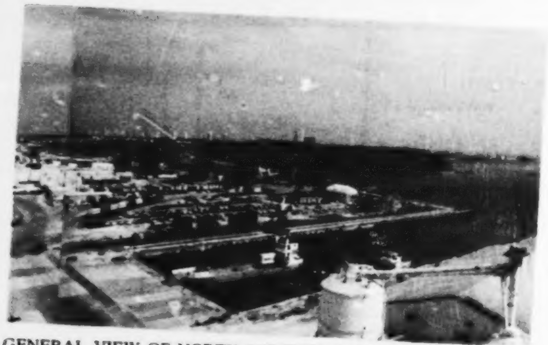
PORT OF PALM BEACH, BERTHS NOS. 13 AND 14
(P.W.D. Ref. No. 8)

GENERAL CARGO WHARF AND PASSENGER TERMINAL
PORT OF PALM BEACH, BERTHS NOS. 15, 16, AND 17
(P.W.D. Ref. No. 9)

PORT OF PALM BEACH, ROLL-ON ROLL-OFF
BERTHS NOS. 20, 21, AND 22
(P.W.D. Ref. No. 11)

TROPIC OPAL

PORT OF PALM BEACH, BERTHS NOS. 23, 24, AND 25,
OPERATED BY TROPICAL SHIPPING CO., LTD.
(P.W.D. Ref. No. 12)



GENERAL VIEW OF NORTH PORTION, PORT OF PALM BEACH
SLIP NO. 2, BERTHS NOS. 8 THROUGH 25 AND PASSENGER
AND CONTAINER HANDLING FACILITIES
(P.W.D. Ref. Nos. 6 through 12)

PORT OF PALM BEACH, FLORIDA

PORT AND HARBOR FACILITIES

PIERS, WHARVES, AND DOCKS

A total of 13 piers, wharves, and docks are described in this report on the Port of Palm Beach. Twelve, owned by the Board of Commissioners of the Port of Palm Beach District, are located along the sides of two slips and the west side of the turning basin and turning basin extension to the north in Lake Worth; the remaining facility, a Coast Guard Station, owned by the federal government, is located on the south side of Peanut Island north of the entrance channel. Each facility is described under a reference number in the table of Piers, Wharves, and Docks beginning on page 109. These reference numbers designate facility locations on the accompanying Port Facilities Map.

Waterfront facilities in the port area used exclusively by recreational craft are not included in this report. The Board of Commissioners of the Port of Palm Beach District operates 17 berths and Tropical Shipping Co. operates 8 berths all engaged in handling general cargo in the port. A summary of these facilities is given below.

The table on the following page summarizes the functional uses of the various piers, wharves, and docks at Palm Beach. Most of these wharves are used for various purposes as indicated in the table; each can be identified by its respective Piers, Wharves, and Docks (P.W.D) reference number.

SUMMARY OF GENERAL CARGO

P.W.D. REF. NO.	MODE	OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	TRANSIT SHEDS		OPEN STORAGE AREA
					NO.	CARGO SPACE (SQ. FT.)	
		PORT OF PALM BEACH					
1	G	Berth No. 1............	210	25	–	–	0.2 acres.
2	G	Berths Nos. 2 and 3....	620	35	1	16,000	–
3	G	Berth No. 3............	220	25	–	–	–
4	G	Berths 5 and 6.........	640	33	1	13,330	–
5	C,G	Berth No. 7............	215	25	–	–	–
6	C,G	Berths Nos. 8 and 9....	700	27	–	–	–
7	C,R,G	Roll-on Roll-off Berths Nos. 10, 11, and 12.	210(*)	25	–	–	12 acres.
8	C,R,G	Berth No. 13...........	700	27	–	–	8 acres.
9	C,R,G	Berths Nos. 15, 16, and 17...............	610	27	–	–	–
10	C,G	Berths Nos. 18 and 19..	300	25	–	–	2,400 TEU
11	R	Roll-on Roll-off Berths Nos. 20, 21, and 22..	200(*)	25	–	–	–
12	C	Berths Nos. 23, 24, and 25..............	80+450	25	–	–	–

MODE: G – Conventional; R – Roll-on Roll-off;
C – Containers lift-on lift-off
* End to berths

PURPOSE FOR WHICH USED

LOCATION	LAKE WORTH												
P.W.D. REFERENCE NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13
Cargo handling:													
General cargo:													
Conventional..........	●	●	●	●	●	●	●	●	●	●			
Containerized.........					●	●	●	●	●	●		●	
Heavy lift items......								●				●	
Refrigerated..........	●												
Roll-on roll-off......							●				●		
Cement.................				●									
Construction equipment..								●				●	
Fuel oil...............		●		●									
Furfural...............				●									
Lumber.................					●								
Molasses...............	●	●											
Steel..................									●				
Sugar..................		●											
Vehicles...............							●	●		●		●	
Handling construction supplies and equipment .							●						
Passengers...............								●	●				
Mooring:													
Excursion vessels.......									●				
Government equipment....													●
Miscellaneous...........	●												

CORPS OF ENGINEERS PORT CODE NO.	14266 Dock Code No. 176	14266 Dock Code No. 176
REFERENCE NUMBER ON MAP NO. 3	1	2
NAME	Port of Palm Beach, Berth No. 1.	Port of Palm Beach, Berths Nos. 2 and 3.
LOCATION ON WATERFRONT	West shore of Lake Worth, south of entrance to Slip No. 2, Riviera Beach. South Road	West shore of Lake Worth, south side of Slip No. 2, Riviera Beach. South Road
OWNED BY	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District.
OPERATED BY	Board of Commissioners of the Port of Palm Beach District and Florida Molasses Exchange, Inc.	Board of Commissioners of the Port of Palm Beach District; and others (see Remarks).
PURPOSE FOR WHICH USED	Receipt and shipment of conventional and refrigerated general cargo; shipment of molasses; mooring small vessels.	Receipt and shipment of general cargo in foreign and domestic trades; receipt of fuel oil; and shipment of sugar and molasses.
TYPE OF CONSTRUCTION	Steel sheet pile bulkhead, supporting concrete retaining wall, with asphalt-surfaced solid fill; fronted by rubber tire fenders.	Steel sheet pile bulkhead, supporting concrete retaining wall, with asphalt-surfaced solid fill; fronted by rubber tire fenders.
DESCRIPTION	Face	Face
Dimensions (Feet)	210	620
Depth Alongside at MLW Do.	25	35
Breasting Distance Do.	210	620
Total Berthing Space Do.	210	620
Width of Apron Do.	175 and open	39 and open.
Height of Deck at MLW Do.	8.5	8.5
Load Capacity (Lbs. per Sq. Ft.)	1,000	1,000
Lighted or Unlighted	Lighted.	Lighted.
TRANSIT SHEDS Number and Description	None.	One - steel frame, metal covered; concrete floor; divided by firewall.
Length and Width (Feet)		300 by 80
Height Inside Do.		20-25
Floor Area for Cargo (Sq. Ft.)		16,000
Load Capacity (Lbs. per Sq. Ft.)		1,000
Cargo Doors		Shipside: three, 16- by 16-foot Rear: same West end: one, 22- by 20-foot.
MECHANICAL HANDLING FACILITIES	**Board of Commissioners of the Port of Palm Beach District**: Four 250-ton diesel crawler and one mobile cranes, with up to 100-foot booms; one 15-ton diesel, mobile crane with 60-foot boom; seven 40-ton diesel straddle carriers; four 30-ton, one 25-ton, and 21 smaller capacity diesel forklift trucks. Equipment is available at all Port of Palm Beach facilities as required.	**Florida Sugar Marketing and Terminal Association, Inc.**: One electric traveling, full-portal, ship-loader with hinged-cantilevered boom equipped with 15-inch diameter, telescopic loading chute and high speed slinger served by 42-inch, electric belt-conveyor in overhead gallery at rear, extending from storage warehouse in rear. Ship-loader travels 370 feet; has 35- to 40-foot outboard reach; and average loading rate of 600 tons per hour. Warehouse is also served by a 30-inch electric belt conveyor extending from truck-receiving pit. **Florida Power & Light Company**: Two 10-inch swivel-jointed, pipeline loading arms. When not in use, arms can be retracted into pit so as to be flush with apron.
RAILWAY CONNECTIONS	None.	None.
HIGHWAY CONNECTIONS	Via road, asphalt, various widths from Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.	Via road, asphalt, various widths from Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.
WATER SUPPLY (For Vessels)	Through 4-inch line with 3-inch hose connections.	Through 4-inch line with 3-inch hose connections.
ELECTRIC CURRENT (For Vessels)	None.	A.C., 110/220 volts.
FIRE PROTECTION (Other Than City)	Hydrant, hand extinguishers, and security patrol.	Hydrant, hand extinguishers, and security patrol.
REMARKS	One 14-/10-inch pipeline extends to wharf from 7 steel molasses storage tanks at terminal in rear, total capacity 60,000 tons. Approximately 8,700 square feet of paved, open storage area is available between face of wharf and transit shed serving Ref. No. 2.	**Florida Sugar Marketing and Terminal Association, Inc.**: Concrete frame, metal-covered storage warehouse at rear has capacity for 21,500 tons of bulk raw sugar. **Florida Molasses Exchange, Inc.**: One 14-/10-inch pipeline extends to wharf from storage tanks described under Ref. No. 1. **Florida Power & Light Company**: One 30-inch pipeline extends from wharf to 2 steel storage tanks located at Interstate 95 Tank Farm, total capacity 1,000,000 barrels; one 12-inch pipeline extends to 4 steel storage tanks located at Riviera Beach Tank Farm, total capacity 510,000 barrels; and one 12-inch pipeline extends to 4 steel storage tanks at Riviera Power Plant located on adjacent property, total capacity 519,600 barrels.

CORPS OF ENGINEERS PORT CODE NO.	14266 Dock Code No. 176	14266 Dock Code No. 176	
REFERENCE NUMBER ON MAP NO. 3	3	4	
NAME	Port of Palm Beach, Berth No. 4.	Port of Palm Beach, Berths Nos. 5 and 6.	
LOCATION ON WATERFRONT	West shore of Lake Worth, head of Slip No. 2, Riviera Beach. South Road	West shore of Lake Worth, north side of Slip No. 2, Riviera Beach. Middle Road	
OWNED BY	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District.	
OPERATED BY	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District; LaFarge Corp.; Eastern Cement Corp.; Florida Power & Light Co.	
PURPOSE FOR WHICH USED	Receipt and shipment of general cargo by small vessel and barge.	Receipt and shipment of general cargo in foreign and domestic trade; receipt of bulk cement and fuel oil; shipment of furfural.	
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with asphalt-surfaced solid fill; fronted by rubber tire fenders.	Steel sheet pile bulkhead, supporting concrete retaining wall with asphalt-surfaced solid fill; fronted by rubber tire fenders.	
DESCRIPTION	Face	Face	
Dimensions (Feet)	220	640	
Depth Alongside at MLW Do.	25	33	
Breasting Distance Do.	220	640	
Total Berthing Space Do.	220	640	
Width of Apron Do.	Open.	59 and 60	
Height of Deck at MLW Do.	8.5	8.5	
Load Capacity (Lbs. per Sq. Ft.)	1,000	1,000	
Lighted or Unlighted	Lighted.	Lighted.	
TRANSIT SHEDS Number and Description	None.	Two - separated by firewall; both steel frame, metal-covered; asphalt floors.	
		West Shed	East Shed
Length and Width (Feet)		360 by 120	200 by 100
Height Inside Do.		18	22
Floor Area for Cargo (Sq. Ft.)		See Remarks.	13,330
Load Capacity (Lbs. per Sq. Ft.)		1,000	1,000
Cargo Doors		Shipside: 2; rear: 1; all 16 by 17 1/2 overhead doors.	Each side: 2; east end: 1; all 16 by 16 overhead doors.
MECHANICAL HANDLING FACILITIES	Use of equipment described under Ref. No. 1. Additional equipment furnished by stevedoring companies as required.	Florida Power & Light Co.: Two 10-inch swivel-jointed, pipeline unloading arms. Eastern Cement Corp.: One 3-cubic yard, diesel, mobile front-end loader handles cement in storage shed.	
RAILWAY CONNECTIONS	None.	Port of Palm Beach District Railroad: Two surface tracks on apron, total length approximately 950 feet; connect with Florida East Coast Railway.	
HIGHWAY CONNECTIONS	Via road, asphalt, various widths from Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.	Via road, asphalt, various widths from Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.	
WATER SUPPLY (For Vessels)	Through 4-inch line with 3-inch hose connections.	Through 4-inch line with 3-inch hose connections.	
ELECTRIC CURRENT (For Vessels)	A.C., 110 volts.	A.C., 110/220/440 volts.	
FIRE PROTECTION (Other Than City)	Hydrant, hand extinguishers, and security patrol.	Hydrant, hand extinguishers, and security patrol.	
REMARKS	A 60-inch water intake is built into center section of wharf.	LaFarge Corp.: Four 12-inch pipelines extend from wharf to 12 cement storage silos and 6 interstices, total capacity 35,000 tons, located at terminal in rear of Berth No. 4 (Ref. No. 3). Eastern Cement Corp.: Two 12-inch pipelines extend from wharf to west transit shed at rear, total capacity 20,000 tons of cement. Florida Power & Light Co.: One 30- and one 12-inch pipelines extend to respective storage tanks described under Ref. No. 2. Furfural is loaded directly from tank car to vessel.	

ORPS OF ENGINEERS PORT CODE NO.	14266 Dock Code No. 170	14266 Dock Code No. 168	14266 Dock Code No. 168
EFERENCE NUMBER ON MAP NO. 3	5	6	7
AME	Port of Palm Beach, Berth No. 7.	Port of Palm Beach, Berths Nos. 8 and 9.	Port of Palm Beach, Roll-on, Roll-off Berths Nos. 10, 11, and 12.
OCATION ON WATERFRONT	West shore of Lake Worth, between Slips Nos. 1 and 2. Middle Road	West shore of Lake Worth, south side of Slip No. 1. Middle Road	West shore of Lake Worth, west end of Slip No. 1, Riviera Beach. Middle Road
WNED BY	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District.
PERATED BY	Board of Commissioners of the Port of Palm Beach District	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District and others (see Remarks).
URPOSE FOR WHICH USED	Receipt and shipment of lumber and conventional and containerized general cargo in foreign and domestic trade.	Receipt and shipment of conventional and containerized general cargo in foreign and domestic trades.	Receipt and shipment of containerized, conventional, and roll-on, roll-off general cargo in foreign and domestic trade, including vehicles; handling construction supplies and heavy equipment.
YPE OF CONSTRUCTION	Steel sheet pile bulkhead, supporting concrete retaining wall, with asphalt-surfaced solid fill; fronted by rubber tire fenders.	Steel sheet pile bulkhead, supporting concrete retaining wall, with asphalt-surfaced solid fill; fronted by rubber tire fenders.	Steel sheet pile bulkhead, supporting concrete retaining wall, concrete-surfaced solid fill with depressed apron for accommodating vessel bow ramps; fronted by vertical rubber strip fenders.
ESCRIPTION	Face	Face	Face
imensions (Feet)	215	700	210
pth Alongside at MLW Do.	25	27*	25
easting Distance Do.	215	700	210
tal Berthing Space Do.	215	700	45 and to-
dth of Apron Do.	95-110	53-91	Open.
ight of Deck at MLW Do.	8.5	8.5	3-3.5
ad Capacity (Lbs. per Sq. Ft.)	1,000	1,000	1,000
ghted or Unlighted	Lighted.	Lighted.	Lighted.
ANSIT SHEDS ber and Description	None.	Use of transit shed described under Berths Nos. 5 and 6 (Ref. No. 4).	None.
gth and Width (Feet)			
ght Inside Do.			
or Area for Cargo (Sq. Ft.)			
d Capacity (Lbs. per Sq. Ft.)			
o Doors			
ANICAL HANDLING FACILITIES	Use of equipment described under Ref. No. 1. Additional equipment furnished by stevedoring companies as required.	Use of equipment described under Ref. No. 1. Additional equipment furnished by stevedoring companies as required.	Use of equipment described under Ref. No. 1. Additional equipment furnished by stevedoring companies as required.
WAY CONNECTIONS	Port of Palm Beach District Railroad: Use of two surface tracks serving Berth No. 6 (Ref. No. 4).	None.	Port of Palm Beach District Railroad: Two surface tracks terminating approximately 250 feet in rear connect with Florida East Coast Railway.
WAY CONNECTIONS	Via road, asphalt, various widths from Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.	Via road, asphalt, various widths from Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.	Via road, asphalt, various widths from Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.
SUPPLY (For Vessels)	Through 6-inch line with 3-inch hose connections.	Through 6-inch line with 3-inch hose connections.	Through 1-inch line with 3/4-inch hose connections.
RIC CURRENT (For Vessels)	A.C., 110/220 volts.	A.C., 110/220 volts.	None.
PROTECTION r Than City)	Hydrant, chemical cart, suction hydrant, hand extinguishers, and security patrol.	Hydrant, chemical cart, suction hydrant, hand extinguishers, and security patrol.	Hydrant, hand extinguishers, and security patrol.
S	-	* Wharf is designed to support a 33-foot depth alongside. Stern- or bow-loading vessels at Berth No. 9 can utilize Roll-on Roll-off facility at Berth No. 10 (Ref. No. 7).	Wharf operators include: Tecmarine, Inc.; Williams Shipping, Inc.; Blue Carib, Inc.; and Atlantic Undersea Testing and Evaluation Center (AUTEC). Specially designed, bow-loading vessels berth bow-to loading ramps to handle various roll-on roll-off cargo. Approximately 12 acres of paved open storage area located at rear of face is used primarily for containers.

CORPS OF ENGINEERS PORT CODE NO.	14266 Dock Code No. 168	14266 Dock Code No. 168	14266 Dock Code No. 163
REFERENCE NUMBER ON MAP NO. 3	8	9	10
NAME	Port of Palm Beach, Berths Nos. 13 and 14.	Port of Palm Beach, Berths Nos. 15, 16 and 17.	Port of Palm Beach, Berths Nos. 18 and 19.
LOCATION ON WATERFRONT	West shore of Lake Worth, north side of Slip No. 1, Riviera Beach. Port Road	West shore of Lake Worth, north of entrance to Slip No. 1, Riviera Beach. Foot of Port Road	West shore of Lake Worth, north of foot of Port Road, Riviera Beach. 4 East Port Road
OWNED BY	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District.
OPERATED BY	Board of Commissioners of the Port of Palm Beach District and Crown Cruise Line, Inc.	Board of Commissioners of the Port of Palm Beach District and Crown Cruise Line, Inc.	Tropical Shipping Co., Ltd.
PURPOSE FOR WHICH USED	Berth No. 13: Receipt and shipment of containerized and conventional general cargo in foreign and domestic trade, heavy-lift items, construction equipment and vehicles; Berth No. 14: Boarding passengers.	Receipt and shipment of containerized and conventional general cargo in foreign and domestic trade, including steel; mooring cruise vessels; boarding passengers.	Receipt and shipment of vehicles an containerized and conventional general cargo in foreign and domestic trade.
TYPE OF CONSTRUCTION	Steel sheet pile bulkhead, supporting concrete retaining wall, concrete-surfaced solid fill; fronted by rubber tire fenders.	Concrete-capped, steel sheet pile bulkhead with part asphalt- and part concrete-surfaced solid fill; fronted by concrete pile, concrete-decked extension on north end; rubber tire fender system.	Steel sheet pile bulkhead supportin concrete retaining wall with asphalt-surfaced solid fill; fronte by rubber tire fenders.
DESCRIPTION	Face	Face	Face
Dimensions (Feet)	700	61	300
Depth Alongside at MLW Do.	27*	27	25
Breasting Distance Do.	700	610	300
Total Berthing Space Do.	700	610	300
Width of Apron Do.	60 and open.	44 and open.	Open.
Height of Deck at MLW Do.	8	8.5	8.5
Load Capacity (Lbs. per Sq. Ft.)	1,000	1,000	1,000
Lighted or Unlighted	Lighted.	Lighted.	Lighted.
MECHANICAL HANDLING FACILITIES	Use of equipment described under Ref. No. 1. Additional equipment is furnished by stevedoring companies as required.	Use of equipment described under Ref. No. 1. Additional equipment is furnished by stevedoring companies as required.	Three 250-ton, diesel, crawler cranes, each with 110-foot boom, a use of equipment described under Ref. No. 1.
RAILWAY CONNECTIONS	None.	None.	Port of Palm Beach District Railroad: One 700-foot surface track serves COFC transfer facilit in rear; connects with Florida Ea Coast Railway.
HIGHWAY CONNECTIONS	Via road, asphalt, various widths from Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.	Via Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.	Via Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.
WATER SUPPLY (For Vessels)	Through 6-inch line with 3-inch hose connections.	Through 6-inch line with 3-inch hose connections.	Through 4-inch line with 2-1/2-in connections.
ELECTRIC CURRENT (For Vessels)	A.C., 110/220/480 volts.	None.	A.C., 110/440 volts.
FIRE PROTECTION (Other Than City)	Hydrant, chemical cart, suction hydrant, hand extinguishers, and security patrol.	Hydrant, suction hydrant, hand extinguishers, and security patrol.	Hydrant, suction hydrant, hand extinguishers, and security patro
REMARKS	Wharf is designed to support a 33-foot depth alongside. At time of survey (1989), a 20,000 square foot passenger terminal with adjustable overhead passenger gangway was under construction at rear of Berth No. 14. Containers are stacked two high in 8-acre, paved, open storage area at rear.	A 7,500-square foot passenger terminal and a parking lot for 220 vehicles are located in rear. Two timber-capped, reinforced concrete runways extending along rear of face are used by crawler cranes when handling cargo.	Company operates a 29-acre contai terminal complex, consisting of buildings used for container frei station; repair shops and offices and an open storage area for approximately 2,400 twenty-foot equivalent containers stacked three high. Approximately 25 tru and 14 rail cars can be accommoda alongside buildings.

RPS OF ENGINEERS PORT CODE NO.	14266 Dock Code No. 163	14266 Dock Code No. 168		14266 Dock Code No.		
FERENCE NUMBER ON MAP NO. 3	11	12		13		
ME	Port of Palm Beach, Roll-on, Roll-off Berths Nos. 20, 21, and 22.	Port of Palm Beach, Berths Nos. 23, 24, and 25.		U. S. Coast Guard Station, Lake Worth Inlet Piers.		
CATION ON WATERFRONT	West shore of Lake Worth, between foot of Port Road and foot of Lakeview Avenue extended, Riviera Beach. 4 East Port Road	West shore of Lake Worth, foot of Lakeview Avenue extended, Riviera Beach. 4 East Port Road		South side of Peanut Island, north side of Lake Worth entrance channel. Peanut Island		
NED BY	Board of Commissioners of the Port of Palm Beach District.	Board of Commissioners of the Port of Palm Beach District.		United States Government.		
ERATED BY	Tropical Shipping Co., Ltd.	Tropical Shipping Co., Ltd.		U. S. Coast Guard.		
RPOSE FOR WHICH USED	Handling roll-on roll-off general cargo in foreign and domestic trade.	Receipt and shipment of containerized general cargo; vehicles, construction equipment, and heavy-lift items in foreign and domestic trade.		Mooring U. S. Coast Guard vessels.		
PE OF CONSTRUCTION	Steel sheet pile bulkhead supporting concrete retaining wall with asphalt-surfaced solid fill on inclined apron, forming ramp.	Steel sheet pile bulkhead supporting concrete retaining wall with asphalt-surfaced solid fill; fronted by rubber tire fenders.		Concrete pile, concrete-decked main pier. A 3-foot-wide, concrete pile, prestressed concrete-decked walkway extends 132 feet easterly at right angle to main pier forming the approach to 3 piers of same construction spaced 35 feet apart and parallel to main pier.		
SCRIPTION	Face	Berth No. 23 South face	Berths Nos. 24-25 East	Main Pier	One pier	Two piers
mensions (Feet)	67+67+67	80	450	80	26 by 3	52 by 3
pth Alongside at MLW Do.	25	25	25	2-10	3-7	2-8
easting Distance Do.	67+67+67	80	450	160	52	208
tal Berthing Space Do.	3 vessels end-to	80	450	160	52	208
dth of Apron Do.	Open.	Open.	Open.	Open.		
ight of Deck at MLW Do.	5	8.5	8.5	5		
ad Capacity (Lbs. per Sq. Ft.)	1,000	1,000	1,000	50		
ghted or Unlighted	Lighted.	Lighted.		Lighted.		
CHANICAL HANDLING FACILITIES	Use of equipment described under Ref. No. 1.	Use of equipment described under Ref. Nos. 1 and 10.		None.		
ILWAY CONNECTIONS	Port of Palm Beach District Railroad: One 700-foot surface track serves COFC transfer facility in rear; connects with Florida East Coast Railway.	Port of Palm Beach District Railroad: One 700-foot surface track serves COFC transfer facility in rear; connects with Florida East Coast Railway.		None.		
GHWAY CONNECTIONS	Via Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.	Via Port Road, asphalt, 50 feet wide, from Broadway (U.S. Highway 1), asphalt, 48 feet wide.		None. (See Remarks.)		
TER SUPPLY (For Vessels)	Through 4-inch line with 2-1/2-inch connections.	Through 4-inch line with 2-1/2-inch connections.		Through 1-inch line with 3/4-inch hose connection.		
ECTRIC CURRENT (For Vessels)	A.C., 110/440 volts.	A.C., 110/440 volts.		A. C., 120 volts.		
RE PROTECTION (Other Than City)	Hydrant, suction hydrant, hand extinguishers, and security patrol.	Hydrant, suction hydrant, hand extinguishers, and security patrol.		Fire pump hoses, hand extinguishers, and 24-hour duty.		
MARKS	Vessels berth bow- or stern- to for loading/unloading roll-on, roll-off cargo at one of three 67-foot-wide berths.	See Remarks under Ref. No. 10.		Base is accessible via small craft operating from a 75- by 12-foot timber pile, timber-decked pier located south of power plant at rear of Ref. No. 1.		

OIL HANDLING AND BUNKERING

The Florida Power and Light Co. receives fuel oil for plant consumption at Berths Nos. 2 and 5 (P.W.D. Ref. Nos. 2 and 4, respectively). The pipelines at these berths extend to four steel storage tanks at the Riviera Power Plant which have a total capacity of 519,600 barrels. Vessels at berth are generally bunkered by tank truck.

LIQUID BULK COMMODITIES

The Florida Molasses Exchange, Inc. ships molasses over two wharves at Palm Beach, Berth Nos. 1 and 2 (P.W.D. Ref. Nos. 1 and 2, respectively. Pipelines extend to the Berths from 7 storage tanks with a total capacity of 60,000 gallons located adjacent to the sugar terminal.

DRY BULK HANDLING

Cement and sugar are the only dry bulk commodities handled at the Port of Palm Beach. A summary tabulation of the bulk material handling capabilities of the two facilities handling dry bulk cargo is given below. More detailed information may be found in the table of Piers, Wharves, and Docks beginning on page 109.

P.W.D. REF. NO.	OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	HANDLING EQUIPMENT TYPE/RATE (TONS/HOUR)	PRODUCTS	STORAGE CAPACITY
2	Florida Sugar Marketing and Terminal Association	620	35	Gantry ship loader (600).	Sugar.	21,500 tons (building).
4	LaFarge Corp.	640	33	Pneumatic pipelines.	Cement.	35,000 tons (silos).
	Eastern Cement Corp.			Pneumatic pipelines.	Cement.	20,000 tons (building).

WAREHOUSES

Two transit sheds (Buildings A and B) located at Port of Palm Beach, Berths Nos. 2 and 6 (P.W.D. Ref. Nos. 2 and 4, respectively), and included in the Summary of General Cargo Facilities on page 107, are available to the public for long-term or transit storage of cargo, as required.

In addition to the transit shed facilities described above, three companies operate a total of 113,000 square feet of dry storage space and one company operates 19,200 cubic feet of cold storage space available to the public.

One of the warehouses has railway connections and each is accessible to arterial highways. Diversified handling equipment is maintained by the operators and most provide special services, including blast freezing, packing, crating, forwarding, and pool car distribution.

The operators listed in the table of Storage Warehouses on pages 116 and 117 represent largely the respondents to a mailed questionnaire as time restrictions precluded complete field gathering of information.

OPEN STORAGE

In addition to the long- and short-term, covered storage facilities for waterborne cargo, there are approximately 20 acres of open storage area within the port area. This area is owned by the Board of Commissioners of the Port of Palm Beach District. Paved roads, aprons, and railroad spurs provide approach and access to the storage areas. These storage areas are shown in the Summary of General Cargo Facilities on page 107.

The Board also owns 22.6 acres of property west of Broadway and north of Port Road. Approximately 2.7 acres of this area are used by the port, and portions have been leased to Tropical Shipping Company, Ltd.

HOISTING EQUIPMENT - ASHORE AND AFLOAT

Conventional general cargo at the port is usually handled to and from vessels by ships' tackle; however, hoisting equipment is available to the public for making heavy lifts as follows:

Tropical Shipping Company, Ltd.

Three 250 ton, diesel crawler cranes, each with 110-foot boom.

Board of Commissioners of the Port of Palm Beach District

Four 250-ton diesel cranes with up to 100-foot boom.

No floating cranes or derricks for making heavy lifts at shipside are based at the port.

STORAGE WAREHOUSES

WAREHOUSE REF. NO.	1		OFF MAP	
OPERATOR AND ADDRESS	Exports, Inc. 916 Avenue E., P. O. Box 10612 Riviera Beach, FL 33404		Dixie Food Products & Cold Storage 3033 South State Road 7 West Palm Beach, FL 33414	
LOCATION	-		-	
KIND OF STORAGE	Dry.		Cold.	
COMMODITIES USUALLY STORED	U. S. Customs bonded general merchandise.		Perishable food commodities.	
DESCRIPTION				
Type of Construction	Steel frame, metal covered; concrete floor.		Steel frame, concrete block walls; concrete floor.	
Number of Floors	One.		One.	
Clear Height for Storage (feet):				
First Floor....................	30		11-13	
Other Floors..................	-		-	
Load Capacity (Lbs/Sq.Ft.):				
First Floor....................	-		Unlimited.	
Other Floors..................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General Storage.......(Sq.Ft.)	-	-	-	-
U.S. Customs Bonded...(Sq.Ft.)	5,000	-	-	-
Cooler Space..........(Cu.Ft.)	-	-	-	-
Freezer Space.........(Cu.Ft.)	-	-	-	19,200
Convertible Space.....(Cu.Ft.)	-	-	-	-
RAILWAY CONNECTIONS	None.		None.	
TRUCKLOADING STATIONS	Three.		Eighteen.	
HANDLING EQUIPMENT	One 2 1/2-ton, LP-gas, forklift truck.		Forklift trucks.	
FIRE PROTECTION	A.D.T. service and hand extinguishers.		Hand extinguishers and security patrol.	
REMARKS	-		Direct ammonia expansion system; temperature ranges to -5°F.	

STORAGE WAREHOUSES

WAREHOUSE REF. NO.	OFF MAP		OFF MAP	
OPERATOR AND ADDRESS	U & Me Bonded Warehouse, Inc. 2626 Electronics Way West Palm Beach, FL 33407		Willie's Transfer & Storage 1320 - 53rd Street, Mangonia Park West Palm Beach, FL 33407	
LOCATION	-		-	
KIND OF STORAGE	Dry.		Dry.	
COMMODITIES USUALLY STORED	General merchandise.		General merchandise.	
DESCRIPTION				
Type of Construction	Steel frame, concrete block walls; concrete roof and floor.		Steel frame, concrete block walls; concrete floor.	
Number of Floors	One.		One.	
Clear Height for Storage (feet):				
First Floor..................	20		20	
Other Floors..................	Unlimited.		0	
Load Capacity (Lbs/Sq.Ft.):				
First Floor..................	-		1,500	
Other Floors..................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General Storage.......(Sq.Ft.)	70,000	-	38,000	-
U.S. Customs Bonded...(Sq.Ft.)	-	-	-	-
Cooler Space..........(Cu.Ft.)	-	-	-	-
Freezer Space.........(Cu.Ft.)	-	-	-	-
Convertible Space.....(Cu.Ft.)	-	-	-	-
RAILWAY CONNECTIONS	One 3-car capacity, platform-level track connects with CSX Rail Transport and Florida East Coast Railway.		None.	
TRUCKLOADING STATIONS	Eleven.		Eight.	
HANDLING EQUIPMENT	Forty forklift trucks.		Forklift trucks and electric conveyors.	
FIRE PROTECTION	Automatic detection system, sprinkler system, hand extinguishers, and security patrol.		Hand extinguishers and hose reel.	
REMARKS	-		-	

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT

The Spencer Boat Company, 4000 North Dixie Highway, West Palm Beach, owns and operates a waterfront marine repair plant equipped to make all types of above- and below-waterline repairs to small vessels. This plant, located on the Atlantic Intracoastal Waterway south of the port's turning basin, maintains piers, fully equipped shops, and a 100-ton capacity, vertical boat lift with an 84- by 24- foot platform. The boat lift handles vessels by cradles traveling on rails extending from the platform to covered and open working and storage areas in rear.

There are no facilities available for making repairs, drydocking, or hauling out large deep-draft vessels at the port; the nearest such facilities are at Jacksonville, Florida, and are described in the Port Series No. 15, The Ports of Jacksonville and Fernandina Beach, Florida, last revised in 1986.

FLOATING EQUIPMENT

Port Towing Corporation, P.O. Box 12425, Lake Park, Florida 33403, performs towing, docking, and undocking services for vessels at the Port of Palm Beach. This company operates three 60-foot, diesel-powered tugs--"Kathy M," "Mark" and "Fitz"--with ratings of 1,000, 1,000, and 900 horsepower, respectively.

Additional information on floating equipment can be obtained from the publication "Waterborne Transportation Lines of the United States" which is described on page 65 of this report.

RAIL LINES

The Port of Palm Beach District Railroad, owned by the Board of Commissioners of the Port of Palm Beach District, serves the majority of the port's waterfront facilities including a COFC transfer facility within the north terminal area operated by Tropical Shipping Co., Ltd. The carrier connects with the Florida East Coast Railway just west of the port area. Traffic is interchanged with CSX Rail Transport via the Florida East Coast Railway at a point approximately 2 miles south of the port.

PORT OF PORT CANAVERAL, FLORIDA

PORT AND HARBOR CONDITIONS

LOCATION AND GENERAL DESCRIPTION

The Port of Port Canaveral, Florida is located directly south of the John F. Kennedy Space Center approximately 7 nautical miles southwest of Cape Canaveral, about 146 miles south of the entrance to Jacksonville Harbor, and about 168 miles north-northwest of Miami Harbor. The port occupies both sides of the Canaveral Barge Canal and Inner Reach of the deepwater entrance channel.

The city of Cape Canaveral, just south of the port, is on the north end of the offshore barrier island following the Florida coast line and is connected to the mainland by the Bennett Memorial Causeway extending across the Banana and Indian Rivers.

The deepwater entrance to the port is via a dredged channel approaching from the southeast, thence in an east-west direction across the shoreline to an East and Middle Basin on the north side of the channel; continuing westerly for approximately 4,000 feet, and then continuing as the more shallow Canaveral Barge Canal to West Basin on the north, and Port Canaveral Basin on the south side, just east of the barge lock. The Canaveral Barge Canal continues through the lock, across the Banana River, and through Merritt Island to connect with the Atlantic Intracoastal Waterway running north-south in the Indian River.

The commercial waterfront facilities at Port Canaveral are located along the south side of the main channel, along the north side of the channel west of the Middle Basin, as well as along the sides of the Middle and West Basins. Also included in this section of the report are 2 facilities on channels off the Banana River (Saturn Barge Channel) maintained in support of the John F. Kennedy Space Center and 2 wharves serving electrical power plants along the Atlantic Intracoastal Waterway (Indian River) at Frontenac and Delespine.

HARBOR AND CHANNEL IMPROVEMENTS BY THE UNITED STATES

The existing project, authorized by the River and Harbor Acts of 2 March 1945 and 23 October 1962, provide for the following work:

> Maintenance of a channel 37 feet deep and 400 feet wide in Canaveral Bight, thence 36 feet deep and 300 feet wide through the barrier beach, and in irregular-shaped turning basin 35 feet deep.
>
> Relocation of perimeter dike about 4,000 feet westward.
>
> Provision of a channel 31 feet deep and 400 feet wide and a turning basin 31 feet deep near the relocated dike.

Enlargement of the barge channel to 12 feet deep and 125 feet wide from the 35-foot deep turning basin to the Intracoastal Waterway.

A channel extension 31 feet by 300 feet by approximately 1,500 feet dredged west of the turning basin.

A barge lock 90 feet wide and 600 feet long west of the harbor dike.

Construction and operation of a sand-transfer plant.

Two entrance jetties extending to the 12-foot contour.

Federal participation in costs of bridges and roads constructed by local interests.

The project is approximately 82 percent complete. Work remaining is construction of a sand-transfer plant. Length of the project is about 11.5 miles. All depths refer to mean low water.

The Canaveral Lock, opened in 1965, is constructed of concrete with two steel sector gates at each end. The inside clear dimensions are 600 feet by 90 feet, with each sill at a depth of 16 feet, and lock walls at an elevation of 10 feet, at mean low water.

The channel controlling depths and project dimensions are given in the table below .

CONTROLLING DEPTHS AND PROJECT DIMENSIONS

CHANNEL	CONTROLLING DEPTHS (MLW) LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	PROJECT DIMENSIONS LENGTH (NAUT. MILES)	WIDTH (FEET)	DEPTH MLW (FEET)
Outer Reach	43.0	42.6	43.5	42.7	2/89	5.5	400	37
Middle Reach	38.1	43.2	39.8	34.7	4/89	0.8	400-300	37
Inner Reach	28.3	33.0	34.6	35.4	4/89	0.7	300	36
	CONTROLLING DEPTHS (FT.-MLW)							
West of Middle Basin	31.0				4/89	-	400	31
East Turning Basin	38.1				4/89	-	-	36
Middle Turning Basin	28.6				4/89	-	-	35
West Turning Basin	33.2					-	-	31
Canaveral Barge Canal:								
to Lock	11.7 (width 60)				4/89	-	125	12
Lock to Intracoastal Waterway	11.6				4/89	-	125	12

TIDES

Mean tidal variation is 3.4 feet at Canaveral Bight, and practically non-tidal in the Banana and Indian Rivers.

ANCHORAGES

There are no federally designated anchorage areas for deep-draft vessels in Port Canaveral, or the Canaveral Bight.

BRIDGES

No bridges cross the deep-draft channel or the Canaveral Barge Canal within the Port of Port Canaveral. Three bascule highway bridges cross the canal east of the lock, and one bascule highway bridge crosses the canal on Merritt Island. One bridge also crosses the Saturn Barge Canal (Banana River) near the John F. Kennedy Space Center.

Details of these bascule highway bridges are as follows:

MILES ABOVE MOUTH	LOCATION AND NAME	CLEARANCE (FEET)	
		HORIZONTAL	VERTICAL MHW
	Canaveral Barge Canal		
1.0	Merritt Island State Highway 3 Bridge	90	25
5.5	Port Canaveral State Highway 401 Bridges (3)	90, each	25, each
	Saturn Barge Canal		
27.6	NASA Parkway East Highway Bridge	90	24

WEATHER CONDITIONS

Because of its nearness to the ocean, the Port Canaveral area experiences a climate tempered by the effect of land and sea breezes. In the summer, maximum temperatures may reach 90°F or more during late morning or early afternoon, but diminished to the 80's by midday sea breeze and local thundershowers. Winters, though subject to invasions of cold air, are relatively mild due to the nearness of the ocean and the area's southern location.

The rainy season is generally June through mid-October, with the major portion of the summer rainfall occurring in the form of thundershowers occasionally accompanied by strong, gusty winds. Long periods of cloudiness and rain are infrequent.

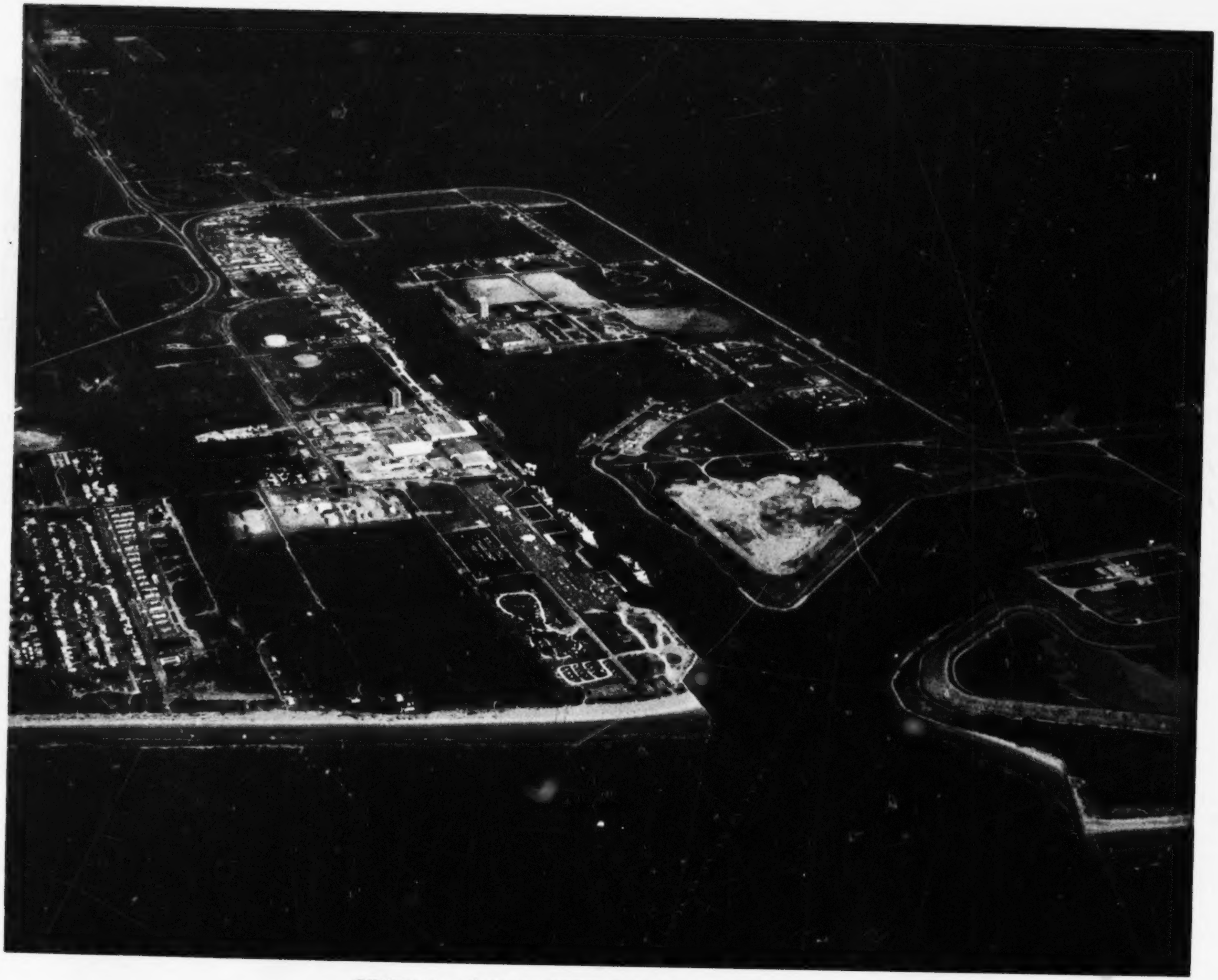
Tropical disturbances or hurricanes are not considered a great threat to this area, though it is not outside the hurricane belt. Generally, hurricanes in this latitude tend to pass well offshore or lose much of their intensity while crossing the Florida peninsula before reaching this area.

Heavy fog occurs mostly during the winter and early spring, forming at night and dissipating soon after sunrise. On rare occasions, sea fog moves in from the ocean and persists for as long as two days.

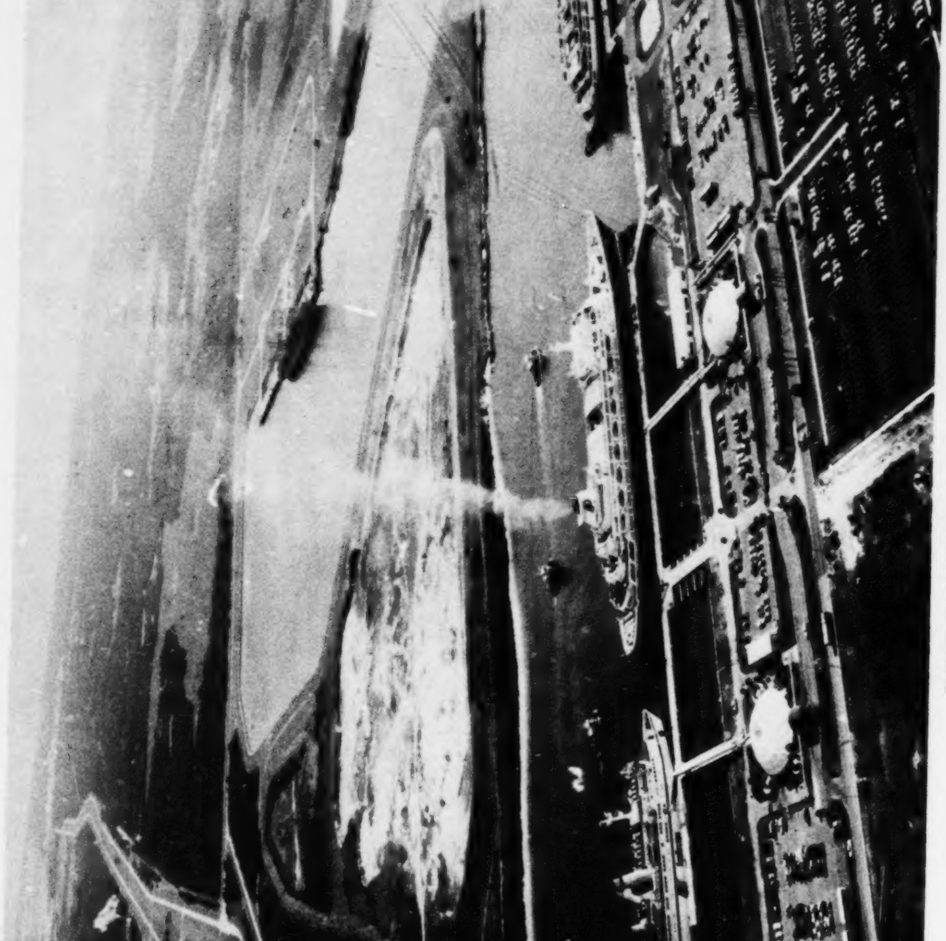
The information below was compiled from the records of the National Weather Service Station at the Daytona Beach Regional Airport, which were furnished by the Environmental Satellite Data and Information Service, National Oceanic and Atmospheric Administration, U. S. Department of Commerce. Daytona Beach is the closest weather station for which local climatological data is issued annually, and is reasonably representative of weather conditions prevailing at Port Canaveral.

METEOROLOGICAL DATA FOR PERIOD OF RECORD

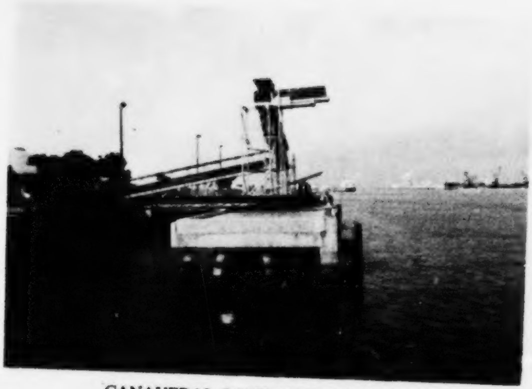
TIME	NORMAL DAILY TEMPERATURE F°		NORMAL TOTAL PRECIPITATION (INCHES)	PREVAILING DIRECTION OF WINDS	HEAVY FOG* (DAYS)
	MAXIMUM	MINIMUM			
No. of years	39	39	39	18	36
January......	69.1	47.6	2.05	NW	6
February.....	70.4	48.7	2.92	NNW	3
March........	74.5	53.3	3.37	SSW	3
April........	80.2	59.2	2.39	E	2
May..........	85.2	64.8	2.65	E	2
June.........	88.4	70.4	6.60	SW	1
July.........	89.6	72.3	6.69	SSW	1
August.......	89.4	72.8	6.84	E	1
September....	87.0	72.0	7.10	E	1
October......	81.4	65.2	5.52	NE	2
November.....	75.1	55.1	2.13	NW	3
December.....	70.2	49.0	1.96	NW	5
Year	80.0	60.9	50.22	E	30



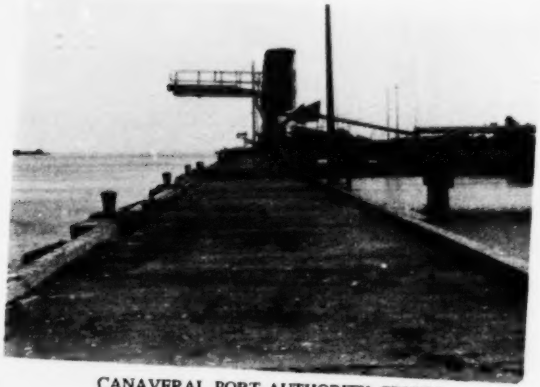
GENERAL VIEW OF PORT CANAVERAL HARBOR



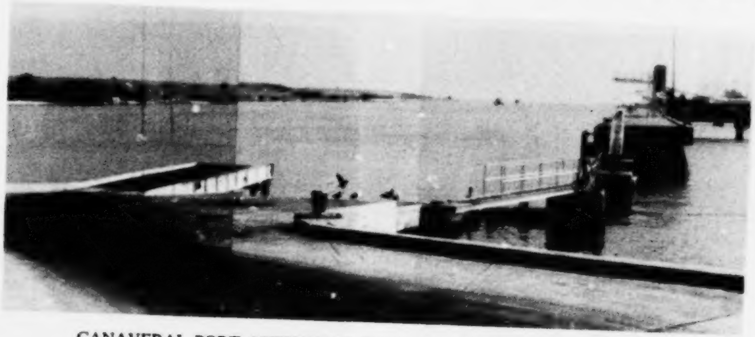
PORT CANAVERAL CRUISE TERMINAL WHARVES
(P.W.D. Ref. Nos. 1 and 2)



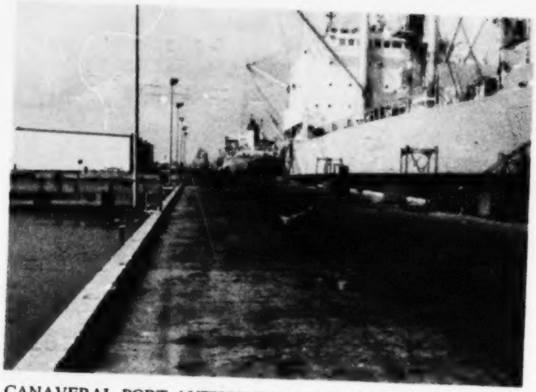
CANAVERAL PORT AUTHORITY CRUISE TERMINAL NO. 4 WHARF
(P.W.D. Ref. No. 1)



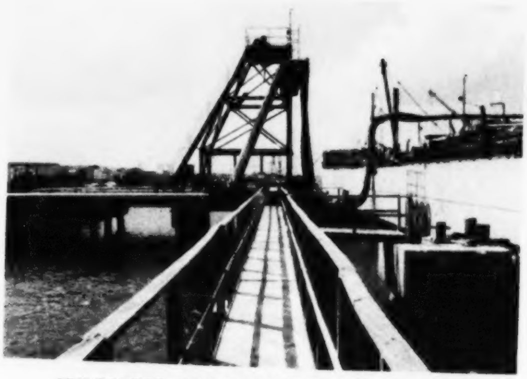
CANAVERAL PORT AUTHORITY CRUISE TERMINAL NO. 3 WHARF
(P.W.D. Ref. No. 2)



CANAVERAL PORT AUTHORITY CRUISE TERMINAL NO. 3 WHARF SHOWING STERN LOADING RAMP IN FOREGROUND
(P.W.D. Ref. No. 2)



CANAVERAL PORT AUTHORITY GENERAL CARGO WHARF
(P.W.D. Ref, No. 3)



UNLOADING CEMENT AT CANAVERAL PORT AUTHORITY TANKER BERTH NO. 1
(P.W.D. Ref. No. 4)

CANAVERAL PORT AUTHORITY TANKER BERTH NO. 2
(P.W.D. Ref. No. 5)

CANAVERAL PORT AUTHORITY BARGE BERTH
(P.W.D. Ref. No. 6)

FISCHER'S SEAFOOD WHARF
(P.W.D. Ref. No. 8)

DEEP SEA FISHING
PELICAN PRINCESS

PELICAN FLEET LANDING
(P.W.D. Ref. No. 9)

CANAVERAL SEAFOOD WHARF
(P.W.D. Ref. No. 10)

SOUTHERN SEAFOODS, WEST WHARF
(P.W.D. Ref. No. 13)

PORT CANAVERAL MARINA, WEST PIER
(P.W.D. Ref. No. 14)

MOBILE VERTICAL BOAT LIFT AND PIERS AT
PORT CANAVERAL MARINA
(P.W.D. Ref. No. 14)

CANAVERAL PORT AUTHORITY
WEST TURNING BASIN WHARF
(P.W.D. Ref. No. 15)

U.S. COAST GUARD STATION
PORT CANAVERAL WHARF
(P.W.D. Ref. No. 18)

FLOATING DRYDOCK MOORED AT
BREVARD SHIPYARD WHARF
(P.W.D. Ref. No. 19)

CAPTAIN BRINN

HARBOR TUG *CAPTAIN BRINN* AT PORT
CANAVERAL TOWING WHARF
(P.W.D. Ref. No. 20)

CEMENT UNLOADING EQUIPMENT AT RINKER MATERIALS CORP., PORT CANAVERAL WHARF
(P.W.D. Ref. No. 23)

CANAVERAL PORT AUTHORITY, NORTH WHARF NO. 1
(P.W.D. Ref. No. 24)

ROLL-ON ROLL-OFF RAMP AT U.S. AIR FORCE CAPE CANAVERAL AIR FORCE STATION WHARF
(P.W.D. Ref. No. 26)

SPACE SHUTTLE COMPONENT UNLOADING FACILITY AT KENNEDY SPACE CENTER
(P.W.D. Ref. No. 28)

ORLANDO UTILITIES COMMISSION, INDIAN RIVER PLANT BARGE WHARF
(P.W.D. Ref. No. 29)

FLORIDA POWER & LIGHT CO., CAPE CANAVERAL PLANT BARGE WHARF
(P.W.D. Ref. No. 30)

PORT OF PORT CANAVERAL, FLORIDA

PORT AND HARBOR FACILITIES

PIERS, WHARVES, AND DOCKS

A total of 30 piers, wharves, and docks are described in this report for the Port of Port Canaveral, Florida. Fourteen are located on the south side of Canaveral Harbor, with the outer 6 serving deep-draft traffic, and 12 are located on the north side of the harbor including the West and Middle Basins.

Two facilities serving the National Air and Space Administration, John F. Kennedy Space Center are located on channels leading off the Saturn Barge Canal which extends northward through Banana River; one at Peterson Point on the west shore of Canaveral Peninsula; and one westerly off the head of Banana River in a turning basin adjacent to NASA Launch Control Center. The remaining two facilities are on the Atlantic Intracoastal Waterway (Indian River) at Frontenac and Delespine.

Each facility is described under a reference number in the table of Piers, Wharves, and Docks beginning on page 131. These reference numbers designate facility locations on the accompanying Port Facilities map.

The table on the following page summarizes the functional uses of the various piers, wharves, and docks. Many of these facilities are used for multiple purposes, as indicated in the table; each can be identified by its respective P.W.D. reference number.

The waterfront facilities in the port area used exclusively by recreational or active military craft, and generally those docking facilities providing nonmaritime use are not included in this report. Non-active docking facilities in good physical condition are included.

A summary of the facilities engaged in handling general cargo is given below.

P.W.D. REF. NO.	OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	TRANSIT SHEDS NO.	TRANSIT SHEDS CARGO SPACE (SQ. FT.)	OPEN STORAGE AREA
	Canaveral Port Authority:					
3	General Cargo Wharf........	1,060	35	3*	108,000	10
24	North Wharf, No. 1.........	400	36	1	20,000	2.5
25	North Wharf, Nos. 3 and 4..	1,540	36	–	–	150**

*Under long-term lease.
**In various stages of development.

LOCATION	SOUTH SIDE, CANAVERAL HARBOR														A
P.W.D. REFERENCE NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Cargo handling:															
Conventional general cargo			●												
Asphalt			●	●											
Cement				●											
Fuel oil					●	●									
Food (frozen)			●												
Paper products			●												
Petroleum products			●	●											
Seafood								●		●	●	●	●		
Bunkering vessels			●	●	●										
Fueling						●	●						●		
Icing						●					●	●			
Marine repair													●		
Passengers	●	●													
Mooring:															
Company-owned floating equipment														●	
Excursion vessels	●	●													
Fishing vessels							●	●	●	●	●	●	●	●	●
Pilot boats			●												
Miscellaneous							●							●	

LOCATION	NORTH SIDE, CANAVERAL HARBOR											B		C	
P.W.D. REFERENCE NUMBERS	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cargo handling:															
Conventional general cargo											●				
Cement								●							
Fuel oil for plant consumption														●	●
Scrap metal										●					
Seafood		●													
Fueling					●										
Marine repair		●		●											
Drydocking				●											
Handling military equipment and supplies											●	●	●		
Mooring:															
Excursion vessels										●					
Fishing vessels	●				●		●								
Government equipment			●						●		●				
Harbor tugs						●									
Miscellaneous								●							

A – NORTH SIDE, CANAVERAL HARBOR
B – BANANA RIVER
C – ATLANTIC INTERCOASTAL WATERWAY

RPS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 959			14150 Dock Code No. 959		14150 Dock Code No. 060		
EFERENCE NUMBER ON MAP NO. 3	1			2		3		
AME	Canaveral Port Authority Cruise Terminal No. 4 Wharf.			Canaveral Port Authority Cruise Terminals Nos. 2 and 3 Wharf.		Canaveral Port Authority General Cargo Wharf.		
OCATION ON WATERFRONT	South side of Canaveral Harbor, approximately 1,000 feet west of outer end of south entrance jetty, Cape Canaveral. 240 Jetty Drive.			South side of Canaveral Harbor, approximately 0.7 mile west of outer end of south entrance jetty, Cape Canaveral. 180-220 Jetty Drive.		South side of Canaveral Harbor, approximately one mile inside outer end of south entrance jetty, Cape Canaveral. 9049 Jetty Park Road.		
WNED BY	Canaveral Port Authority.			Canaveral Port Authority.		Canaveral Port Authority		
PERATED BY	Canaveral Port Authority.			Canaveral Port Authority.		Canaveral Port Authority; Coastal Fuels Marketing Inc.; and Mid-Florida Freezer Warehouses, Ltd.		
URPOSE FOR WHICH USED	Mooring cruise vessels; boarding passengers.			Mooring cruise vessels; boarding passengers.		Receipt and shipment of general cargo; receipt of paper products, asphalt and petroleum products; shipment of frozen food; bunkering vessels; mooring pilot boats.		
YPE OF CONSTRUCTION	Concrete pile, concrete-decked, off-shore wharf, with two 75- by 18-foot approaches, one for passengers and one for vehicles each extending from concrete-capped concrete sheet pile bulkhead with solid fill; one concrete breasting platform with 75- by 30-foot shore connection, is located on each side in line with face. Wharf is fronted by rubber-cushioned steel pile fenders.			Concrete pile, concrete-decked, off-shore wharf, with two 150- by 15-foot approaches for passengers and one each 150- and 100- by 20-foot approaches for vehicles, each extending from concrete-capped steel sheet pile bulkhead with solid fill. A similarly constructed pier extending from bulkhead at west end of berth is used for serving stern loading ramps of cruise vessels. Four concrete mooring dolphins on upper side are connected by catwalk extending to stern loading ramp. Wharf is fronted by rubber-cushioned steel pile fenders.		East end: concrete pile, concrete-decked, offshore wharf fronted by rubber-cushioned steel fenders; with three 65-by 15- to 30-foot roadway approaches; west end: concrete-capped steel sheet pile bulkhead with asphalt-surfaced solid fill, fronted by rubber-cushioned steel and timber fenders.		
ESCRIPTION	Face	East side	West side	Face	West side	Face	East side	West side
imensions (Feet)	360	18	75	1,060	20	1,340	50	75
epth Alongside at MLW Do.	35	-	-	35	-	35	25	-
reasting Distance Do.	550 w/plat.	-	-	1,060	-	1,340	See Remarks.	-
otal Berthing Space Do.	800	-	-	1,060	-	1,060	See Remarks.	-
idth of Apron Do.	18			20		50		
eight of Deck at MLW Do.	10.5			10.5		10.5		
oad Capacity (Lbs. per Sq. Ft.)	200			200		600		
ighted or Unlighted	Lighted.			Lighted.		Lighted.		
RANSIT SHEDS **Number and Description**	None.			None.		One - steel frame, metal-covered; three - concrete frame, masonry walls; all with concrete floors; all are connected.		
						Shed No. 1	Sheds Nos 2, 3, & 4	
Length and Width (Feet)						300 by 60	300 by 100	
Height Inside Do.						14	20	
Floor Area for Cargo (Sq. Ft.)						18,000 gross	90,000 gross total	
Load Capacity (Lbs. per Sq.Ft.)						-	-	
Cargo Doors						Shed 1.- shipside and rear: three 16 by 12, each. Sheds 2,3,&4 - east side: one 16 by 12, each; north side No. 2: three 16 by 12: south side: No. 4, one 16 by 12.		
ECHANICAL HANDLING FACILITIES	None.			None.		Equipment furnished by stevedoring companies.		
AILWAY CONNECTIONS	None.			None.		None.		
IGHWAY CONNECTIONS	Via Jetty Drive, from North Atlantic Ave., each asphalt, 24 feet wide.			Via Jetty Drive, from North Atlantic Avenue, each asphalt, 24 feet wide.		Via North Atlantic Avenue or Pompano St. from George King Boulevard, all asphalt, various widths.		
ATER SUPPLY (For Vessels)	Through 6-inch line.			Through 6-inch line.		Through 6-inch line.		
LECTRIC CURRENT (For Vessels)	None.			None.		A.C., 208/250/480 volts.		
IRE PROTECTION (Other Than City)	Hydrant, water line, hose, and hand extinguishers.			Hydrant, water line, and hand extinguishers.		Hydrant, water line, and hand extinguishers.		
EMARKS	One 9,000-square foot concrete, domed passenger terminal and 4,000-square foot baggage room are located at rear of bulkhead. Terminal is served by a covered walkway along west approach with adjustable gangway on wharf. A 200 vehicle parking lot is located at rear of the passenger terminal.			Two 8,500 square foot concrete, domed passenger terminals are located at rear of bulkhead. Each is served by a covered walkway along adjacent approach with adjustable gangway on wharf. An 800 vehicle parking lot is located at rear of passenger terminals. Coastal Fuels Marketing Inc.: One 14 and three 10-inch petroleum product described under Ref. No. 4.		Pilot boats are moored at rear of upper face in two slips formed by timber mooring piles with 15 by 5 foot timber access pier in center. Transit sheds are under long term lease and serve as storage warehouses, primarily for citrus products. Approximately 10 acres of paved open storage area is located at rear of transit sheds. inch asphalt pipeline, and one 12-lines extend from wharf to tanks		

CORPS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 100		14150 Dock Code No. 110		14150 Dock Code No. 120	
REFERENCE NUMBER ON MAP NO. 3	4		5		6	
NAME	Canaveral Port Authority, Tanker Berth No. 1.		Canaveral Port Authority, Tanker Berth No. 2.		Canaveral Port Authority, Barge Berth.	
LOCATION ON WATERFRONT	South side of Canaveral Harbor, approximately 1.2 miles inside outer end of south entrance jetty, Cape Canaveral. 9012 Marlin Street.		South side of Canaveral Harbor, approximately 1.4 miles inside outer end of south entrance jetty, Cape Canaveral. 320 Glen Cheek Drive		South side of Canaveral Harbor, of foot of Flounder Street exten Cape Canaveral. 340 Glen Cheek Drive	
OWNED BY	Canaveral Port Authority.		Canaveral Port Authority.		Canaveral Port Authority.	
OPERATED BY	Coastal Fuels Marketing, Inc. and Continental Cement Co. of Florida Inc.		Gulf Interstate Terminalling Co.		Gulf Interstate Terminalling Co.	
PURPOSE FOR WHICH USED	Receipt of petroleum products, asphalt, and cement; bunkering vessels.		Receipt and shipment of No. 6 fuel oil; bunkering vessels.		Shipment of No. 6 fuel oils.	
TYPE OF CONSTRUCTION	Concrete pile, concrete-decked, offshore wharf, with 40- by 12- foot concrete approach; 4 concrete breasting dolphins in line with face, connected by catwalks.		Concrete pile, concrete-decked, offshore wharf, with two 60- by 6- to 8-foot concrete approaches; four concrete breasting dolphins in line with face, catwalks connect inner 2 to wharf, and outer 2 to bank at rear.		Concrete pile, concrete-decked, offshore wharf, with 35- by 8-foo concrete approach: 14 timber breasting dolphins in line with face.	
DESCRIPTION	Face	Sides	Face	Sides	Face	Sides
Dimensions (Feet)	45	28, each	43	33, each	25	16, each
Depth Alongside at MLW Do.	35	-	35	-	15	-
Breasting Distance Do.	340w/dolphins	-	340w/dolphins	-	370w/dolphins	-
Total Berthing Space Do.	800(See Remarks)	-	600	-	600	-
Width of Apron Do.	0 and 28		33		16	
Height of Deck at MLW Do.	10		10.0		10.0	
Load Capacity (Lbs. per Sq. Ft.)	-		-		-	
Lighted or Unlighted	Lighted.		Lighted		Lighted.	
MECHANICAL HANDLING FACILITIES	Steel hose-handling frame.		Four 10-inch, swivel-jointed pipeline loading arms.		Two 8-inch, swivel-jointed pipeli loading arms.	
RAILWAY CONNECTIONS	None.		None.		None.	
HIGHWAY CONNECTIONS	Via North Atlantic Avenue or Pompano Street, from George King Boulevard, all asphalt, various widths.		Via North Atlantic Avenue or Pompano Street, from George King Boulevard, all asphalt, various widths.		Via Flounder Street, from George King Boulevard and Dave Nisbet Drive, from State Highway 528, e asphalt, 24-30- feet wide.	
WATER SUPPLY (For Vessels)	Through 2 1/2-inch line.		Through 2 1/2 inch line.		None.	
ELECTRIC CURRENT (For Vessels)	A.C., 110 volts.		None.		A.C., 110/220 volts.	
FIRE PROTECTION (Other Than City)	Hydrant, water line, and hand extinguishers.		Hydrant, water line, and hand extinguishers.		Hydrant, water line, and hand extinguishers.	
REMARKS	Barges and small craft occasionally moor along 300 feet of concrete-capped, steel sheet pile bulkhead with solid fill at rear, with water depths of 12 feet. Continental Cement Co.: Four 10-inch, pneumatic pipelines extend from wharf to six cement storage silos with two interstices at rear, total capacity 32,000 tons. Coastal Fuels Marketing Inc.: Five 10-inch petroleum product pipelines extend from wharf to 13 steel storage tanks, total capacity approximately 554,000 barrels; one 14/10-inch pipeline extends from wharf to 4 steel storage tanks, total capacity approximately 41,000 barrels; and one 22- by 18-inch petroleum pipeline extends from wharf to one 325,000 barrel storage tank at rear for Orlando Utilities Co.		Two 22- to 18-inch pipelines extend from wharf, one to 250,000-barrel storage tank for Florida Power and Light Company and one to Orlando Utilities Company tank described under Ref. No. 4. One 4-inch pipeline on wharf was not in use at time of survey.		One 22-/18-inch pipeline with 12-inch wharf connection extends from Florida Power and Light Co. tank described under Ref. No. 5.	

CORPS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 530			14150 Dock Code No. 570			14150 Dock Code No. 618	
REFERENCE NUMBER ON MAP NO. 3	7			8			9	
NAME	Dolphin's Leap Marina Piers and Mooring Wharf.			Fischers Seafood Wharf.			Pelican Fleet Landing.	
LOCATION ON WATERFRONT	South side of Canaveral Harbor, foot of Flounder Street, Cape Canaveral. 505 Glen Cheek Drive			South side of Canaveral Harbor, below foot of Flounder Street extended, Cape Canaveral. 602 Glen Cheek Drive			South side of Canaveral Harbor, approximately 400 feet east of foot of George King Boulevard, Cape Canaveral. 665 Glen Cheek Drive	
OWNED BY	Dolphin's Leap Marina.			Canaveral Port Authority.			Canaveral Port Authority.	
OPERATED BY	Dolphin's Leap Marina and Canaveral Seafoods Inc.			Fischers Seafood, division of Cape Seafoods Inc. and Harbor Fuel and Ice Co. and Canaveral Charter Boats Inc.			Pelican Party Boats, Inc.	
PURPOSE FOR WHICH USED	Mooring and fueling fishing, charter and recreational craft.			Receipt of seafood; mooring, fueling and icing fishing boats, mooring charter fishing boats.			Mooring charter fishing boats.	
TYPE OF CONSTRUCTION	Angular, concrete-capped, steel sheet pile bulkhead, solid fill with two concrete pile timber-decked piers extending from lower (east) section. A steel fueling float extends upstream from east pier.			Angular concrete-capped steel sheet pile bulkhead, solid fill with two timber pile timber-decked piers extending from upper (west) section.			Concrete-capped steel sheet pile bulkhead, with solid fill; fronted by two timber pile, timber-decked piers and rows of timber piles forming slips.	
DESCRIPTION	East Pier	West Pier	Wharf	Face	East Pier	West Pier	East Pier	West Pier
Dimensions (Feet)	66 by 9	100 by 7	250+50+200	570+50+35	60 by 4	70 by 4	90 by 10	36 by 3
Depth Alongside at MLW Do.	8	3-6	7-18	8	8	8	8-10	8-10
Breasting Distance Do.	20 @ float	200	50+200	570+50	120	140	90+90	36+36
Total Berthing Space Do.	20+5 stalls	9 stalls	50+200	570+50	120	140	180 + slips	36+36
Width of Apron Do.	Open	Open	15	10,204 open			10	3
Height of Deck at MLW Do.	10, bulkhead			10			10	10
Load Capacity (Lbs. per Sq. Ft.)	-			-			-	
Lighted or Unlighted	Lighted.			Partly lighted.			Lighted.	
MECHANICAL HANDLING FACILITIES	None.			Two electric mast-and-boom derricks, each with 10-foot boom and bucket for unloading seafood on raised concrete platform fronting seafood packing plant on east side.			None.	
RAILWAY CONNECTIONS	None.			None.			None.	
HIGHWAY CONNECTIONS	Via Flounder Street, from George King Boulevard and Dave Nisbet Drive from State Highway 528, each asphalt, 24 to 30 feet wide.			Via Glen Cheek Drive from George King Boulevard and Dave Nisbet Drive from State Highway 528, each asphalt, 24 to 30 feet wide.			Via Glen Cheek Drive from George King Boulevard and Dave Nisbet Drive from State Highway 528, each asphalt, 24 to 30 feet wide.	
WATER SUPPLY (For Vessels)	Through 3/4-inch line.			Through two 2- and one 3/4-inch lines.			Through 3/4-inch line.	
ELECTRIC CURRENT (For Vessels)	A.C., 115 volts.			A.C., 115/220/440 volts.			A.C., 115 volts.	
FIRE PROTECTION (Other Than City)	Hydrant, water line, and hand extinguishers.			Hydrant and hand extinguishers.			Hydrant and hand extinguishers.	
REMARKS	Canaveral Seafoods Inc. fishing boats moor along western portion of bulkhead. Two 1 1/2-inch fuel lines serving 2 metered pumps on wharf extend from 2 steel storage tanks at rear, total capacity 30,000 gallons.			One 2-inch fuel pipeline extends to 2 metered pumps on wharf, from 2 steel storage tanks at rear, total capacity 30,000 gallons. One 6-inch ice-blower line extends to wharf from ice-making plant at rear of west end, loading rate approximately 700 pounds per minute. Facility also has two 6-inch ice-blower lines for icing trucks.			Party boats "Pelican Princess" and "Captain Snappy" moor at piers.	

CORPS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 640	14150 Dock Code No. 660	14150 Dock Code No. 71
REFERENCE NUMBER ON MAP NO. 3	10	11	12
NAME	Canaveral Seafood Wharf.	Lambert International Fisheries Dock.	Cape Seafoods Wharf.
LOCATION ON WATERFRONT	South side of Canaveral Harbor, east of foot of George King Boulevard, Cape Canaveral. 714 Scallop Drive	South side of Canaveral Harbor, approximately 0.6 mile below State Highway 401 Bridge, Cape Canaveral. 720 Scallop Drive	South side of Canaveral Harbor, approximately 0.5 mile below St Highway 401 Bridge, Cape Canave 730 Scallop Drive
OWNED BY	Canaveral Port Authority.	Canaveral Port Authority.	Canaveral Port Authority.
OPERATED BY	Canaveral Seafood, Inc.	Lambert International Fisheries, Inc.	Cape Seafoods, Inc.
PURPOSE FOR WHICH USED	Receipt of seafood; mooring fishing boats.	Receipt of seafood; mooring fishing boats.	Receipt of seafood; mooring fis boats.
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with solid fill.	Concrete-capped, steel sheet pile bulkhead with solid fill; fronted by rubber tire fenders.	Concrete-capped, steel sheet pi bulkhead with asphalt-surfaced fill. One timber pile timber-de pier extends from upper (west)
DESCRIPTION	Face	Face	Face
Dimensions (Feet)	500	265	700
Depth Alongside at MLW Do.	10	12	10
Breasting Distance Do.	500	265	700
Total Berthing Space Do.	500	265	700
Width of Apron Do.	Open.	35 & open.	Open.
Height of Deck at MLW Do.	10	10	10
Load Capacity (Lbs. per Sq. Ft.)	-	-	-
Lighted or Unlighted	Lighted.	Lighted.	Lighted.
MECHANICAL HANDLING FACILITIES	Two 1/3-cubic yard, electric, fixed, knuckle-boom unloaders; one 16- and one 12-inch conveyors, one extending to processing plant and one to truck-loading station at rear.	One 1/3-cubic yard, diesel, fixed, knuckle-boom unloader unloads into one of 2 elevated receiving hoppers, each of which is served by a 12-inch conveyor, one extending to processing plant and one to truck-loading station at rear.	One 1/3-cubic yard, gasoline, mobile, knuckle-boom unloader.
RAILWAY CONNECTIONS	None.	None.	None.
HIGHWAY CONNECTIONS	Via Scallop Drive from George King Boulevard and Dave Nisbet Drive from State Highway 528, each asphalt, 24 to 30 feet wide.	Via Scallop Drive from George King Boulevard and Dave Nisbet Drive from State Highway 528, each asphalt, 24 to 30 feet wide.	Via Scallop Drive from George K Boulevard and Dave Nisbet Drive State Highway 528, each asphalt to 30 feet wide.
WATER SUPPLY (For Vessels)	Through 3-, 2-, and 3/4-inch lines.	Through 2- and 3/4- inch lines.	Through 2-inch line.
ELECTRIC CURRENT (For Vessels)	A.C., 115/220 volts.	A.C., 220 volts.	None.
FIRE PROTECTION (Other Than City)	Hydrant and hand extinguishers.	Hydrant and hand extinguishers.	Hydrant and hand extinguishers.
REMARKS	Scallop processing plant located at rear.	Scallop processing plant located at rear.	Scallop processing plant locate rear.

CORPS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 750	14150 Dock Code No. 850		14150 Dock Code No. 771
REFERENCE NUMBER ON MAP NO. 3	13	14		15
NAME	Southern Seafoods Wharf.	Port Canaveral Marina West Pier.		Canaveral Port Authority, West Turning Basin Wharf.
LOCATION ON WATERFRONT	South side of Canaveral Harbor, approximately 0.4 mile below State Highway 401 Bridge, Cape Canaveral. 730 Scallop Drive	South side of Canaveral Harbor, approximately 800 feet southeast of State Highway 401 Bridge, Cape Canaveral. 960 Mullet Road.		North side of Canaveral Harbor, northwest portion of West Turning Basin, 0.5 mile below State Highway 401 Bridge, Cape Canaveral. Cape Road (State Highway 401)
OWNED BY	Canaveral Port Authority	Canaveral Port Authority.		Canaveral Port Authority.
OPERATED BY	Southern Seafoods.	Port Canaveral Marina, Inc.		Various tenants. (See Remarks.)
PURPOSE FOR WHICH USED	Receipt of seafood; mooring and fueling fishing boats.	Mooring, fueling and icing fishing boats and small craft; mooring vessels for repair; mooring company-owned floating equipment.		Mooring fishing boats. (See Remarks.)
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with concrete-surfaced solid fill.	T-shaped concrete pile, aluminum-decked pier, extending from concrete-capped, steel sheet pile bulkhead with paved solid fill and twin concrete pile, concrete-decked piers for mobile vertical boat lift.		Part concrete-capped, steel sheet pile bulkhead with solid fill.
DESCRIPTION	Face	Face	Sides	Face
Dimensions (Feet)	550	90	250+10, each	130+1,050+600
Depth Alongside at MLW Do.	10	10	10	35
Breasting Distance Do.	550	90	35, stalls	130+1,050+600
Total Berthing Space Do.	550	90	35, stalls	130+1,050+600
Width of Apron Do.	Open.	Open.		Open.
Height of Deck at MLW Do.	10	10		10
Load Capacity (Lbs. per Sq. Ft.)	-	-		-
Lighted or Unlighted	Lighted.	Lighted.		Unlighted.
MECHANICAL HANDLING FACILITIES	Two 1/3-cubic yard, gasoline, mobile, knuckle-boom unloaders; one 1/2-cubic yard, mobile, gasoline, front-end loader. Seafood is unloaded from fishing boats and trucks into hopper, served by 16-inch electric belt conveyor extending to plant at rear.	One 20-ton, diesel, mobile crane with 60-foot telescopic boom, and 45-ton diesel crawler crane with 65-foot boom on 100-by 28-foot barge; one 10-ton diesel forklift truck; one 100-ton, gasoline-hydraulic, mobile vertical boat lift travels outboard 60 feet, with clear span of 23.5 feet on crane piers. Additional equipment is available as required.		Portable unloading equipment available as required.
RAILWAY CONNECTIONS	None.	None.		None.
HIGHWAY CONNECTIONS	Via Scallop Drive from George King Boulevard and Dave Nisbet Drive from State Highway 528, each asphalt, 24- to 30-feet wide.	Via Mullet Road, from George King Boulevard and Dave Nisbet Drive, from State Highway 528, each asphalt, 24- to 30-feet wide.		Via Snapper and Grouper Roads, each asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.
WATER SUPPLY (For Vessels)	Through 2- and 3/4-inch lines.	Through 3/4 -inch line.		None.
ELECTRIC CURRENT (For Vessels)	A.C., 115/220 volts.	A.C., 110/220 volts.		None.
FIRE PROTECTION (Other Than City)	Hydrant and hand extinguishers.	Hydrant, hose and hand extinguishers.		Hydrant and hand extinguishers.
REMARKS	Scallop processing plant located at rear. Fueling pipelines extend to wharf from 2 steel storage tanks at rear, total capacity 18,000 gallons.	Marine repair plant, offices, restaurant and dry storage building for 250 boats located in rear. Fueling pipelines extend to pumps at rear of bulkhead from one 22,000-gallon diesel- and one 6,500-gallon gasoline storage tanks.		At time of survey, plans called for construction of a passenger terminal and offshore wharves for cruise vessels, and dredging to depth shown above.

CORPS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 661			14150 Dock Code No. 675	14150 Dock Code No. 66		
REFERENCE NUMBER ON MAP NO. 3	16			17	18		
NAME	Canaveral Port Authority Fishing Fleet Basin.			Port Canaveral Maintenance and Fabrication Wharf.	U.S. Coast Guard Station Port Canaveral Wharf.		
LOCATION ON WATERFRONT	North side of Canaveral Harbor, northeast portion of West Turning Basin, 0.5 mile below State Highway 401 Bridge, Cape Canaveral. Snapper Road			North side of Canaveral Harbor, northeast section of West Turning Basin, 0.5 mile below State Highway 401 Bridge, Cape Canaveral. 735 Snapper Road	North side of Canaveral Harbor, north and east sides, northeast corner of West Turning Basin, 0.5 mile below State Highway 401 Brid 9235 Grouper Road		
OWNED BY	Canaveral Port Authority.			Canaveral Port Authority.	United States Government.		
OPERATED BY	Various tenants. (See Remarks.)			Port Canaveral Maintenance and Fabrication, Inc.	U.S. Coast Guard.		
PURPOSE FOR WHICH USED	Mooring fishing boats. (See Remarks.)			Receipt of seafood; mooring fishing boats for repair.	Mooring U.S. Coast Guard vessels small craft.		
TYPE OF CONSTRUCTION	Rectangular basin formed by concrete-capped, steel sheet pile retaining walls with solid fill.			Concrete-capped, steel sheet pile bulkhead with solid fill.	Angular concrete-capped, steel sh pile bulkhead with solid fill; no face fronted by timber pile timbe decked pier and a plastic foam-filled, concrete float; and east face fronted by rubber loop fende		
DESCRIPTION	North side	West side	South side	Face	Pier	Float	East Wh
Dimensions (Feet)	800	350	800	200	125 by 9	45 by 7	550
Depth Alongside at MLW Do.	12	12	12	10-15	15	15	15
Breasting Distance Do.	See Remarks.	-	-	200	250	90	550
Total Berthing Space Do.	See Remarks.	-	-	200	250	2 vessels	550
Width of Apron Do.	-			Open & 54.	9	7	Open.
Height of Deck at MLW Do.	10			10	10	2	10
Load Capacity (Lbs. per Sq. Ft.)	-			-	-		
Lighted or Unlighted	Lighted.			Lighted.	Lighted.		
MECHANICAL HANDLING FACILITIES	None.			One 10-ton diesel mobile hoist with 30-foot boom. One 24-inch electric belt conveyor for unloading seafood extends from face to truck-loading station at rear.	None.		
RAILWAY CONNECTIONS	None.			None.	None.		
HIGHWAY CONNECTIONS	Via Snapper and Grouper Roads, each asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.			Via Snapper and Grouper Roads, each asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.	Via Grouper Road, asphalt, 24 fe wide, from State Highway 401, asphalt, 40 feet wide.		
WATER SUPPLY (For Vessels)	Available.			Through 3/4 -inch line.	Through 2 1/2- and 3/4 -inch connections.		
ELECTRIC CURRENT (For Vessels)	A.C., 110/220 volts.			A.C., 115/220 volts.	A.C., 120/220/480 volts.		
FIRE PROTECTION (Other Than City)	Hydrant and hand extinguishers.			Hydrant and hand extinguishers.	Fire line, hydrant, hose, and ha extinguishers.		
REMARKS	Facility was under construction at time of survey (1989), details of pier arrangement and berthing spaces had not yet been determined.			Marine repair plant located at rear.	One 4-inch sewage pipeline for vessels is located on wharf. Fuel pipeline extends to wharf from o 4,000-gallon storage tank in rea		

ORPS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 663	14150 Dock Code No. 661	14150 Dock Code No. 659
EFERENCE NUMBER ON MAP NO. 3	19	20	21
AME	Brevard Shipyard Wharf.	Canaveral Port Authority West Turning Basin East Wharf.	Port Canaveral Towing Wharf.
OCATION ON WATERFRONT	North side of Canaveral Harbor, east side of West Turning Basin, 0.5 mile below State Highway 401 Bridge, Cape Canaveral. 9185 Grouper Road	North side of Canaveral Harbor, outer portion, east side of West Turning Basin, 0.5 mile below State Highway 401 Bridge. 9121 Grouper Road	North side of Canaveral Harbor, outer end, east side of West Turning Basin, 0.5 mile below State Highway 401 Bridge. 9119 Grouper Road
WNED BY	Canaveral Port Authority.	Canaveral Port Authority.	Canaveral Port Authority
PERATED BY	Brevard Shipyard, Inc.	Lambert International Fisheries Inc.	Port Canaveral Towing, subsidiary of Svide Shipping, Inc.
URPOSE FOR WHICH USED	Mooring fishing boats for repair; mooring floating drydock.	Mooring and fueling fishing boats.	Mooring harbor tugs.
YPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with solid fill; fronted by timber pile and rubber tire fenders.	Concrete-capped steel sheet pile bulkhead with solid fill; fronted by timber pile and rubber tire fenders.	Concrete-capped, steel sheet pile bulkhead with solid fill.
ESCRIPTION	Face	Face	Face
imensions (Feet)	900	200	150
epth Alongside at MLW Do.	10-15	12	12
reasting Distance Do.	900	200	150
otal Berthing Space Do.	900	200	150
idth of Apron Do.	Open.	Open.	Open.
eight of Deck at MLW Do.	10	10	10
oad Capacity (Lbs. per Sq. Ft.)	-	-	-
ighted or Unlighted	Partly lighted.	Unlighted.	Lighted.
ECHANICAL HANDLING FACILITIES	One 10-ton diesel mobile hoist with 30-foot boom.	None.	None.
AILWAY CONNECTIONS	None.	None.	None.
IGHWAY CONNECTIONS	Via Grouper Road, asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.	Via Grouper Road, asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.	Via Grouper Road, asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.
ATER SUPPLY (For Vessels)	Through 1 1/2-inch line.	Through 3/4-inch line.	Through 3/4-inch line.
LECTRIC CURRENT (For Vessels)	A.C., 110/220 volts.	A.C., 110 volts.	A.C., 110/240 volts.
FIRE PROTECTION (Other Than City)	Hydrant, hose and hand extinguishers.	Hydrant and hand extinguishers.	Hydrant and hand extinguishers.
EMARKS	One 300-ton floating drydock is moored at wharf. Marine repair plant is located at rear.	Fueling pipelines extend to wharf from 2 steel storage tanks at rear, total capacity 20,000 gallons.	Dispatch office is located in rear.

CORPS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 585	14150 Dock Code No. 551		14150 Dock Code No. 501	
REFERENCE NUMBER ON MAP NO. 3	22	23		24	
NAME	Canaveral Port Authority, Dolphin Road Mooring Wharf.	Rinker Materials Corp., Port Canaveral Wharf.		Canaveral Port Authority, Wharf, No. 1.	
LOCATION ON WATERFRONT	North side of Canaveral Harbor, approximately 0.9 mile below State Highway 409 Bridge, Cape Canaveral. 650 Dolphin Road.	North side of Canaveral Harbor, approximately one mile below State Highway 409 Bridge, Cape Canaveral. 550 Dolphin Road.		North side of Canaveral Ha approximately 1.2 miles below Highway 409 Bridge, Cape Canave 470 Dolphin Road.	
OWNED BY	Canaveral Port Authority	Canaveral Port Authority.		Canaveral Port Authority.	
OPERATED BY	Canaveral Port Authority	Rinker Materials Corp.		U.S. Navy.	
PURPOSE FOR WHICH USED	Mooring fishing boats.	Receipt of cement; mooring vessels.		Mooring U.S. Naval vessels.	
TYPE OF CONSTRUCTION	Steel sheet pile bulkhead with solid fill.	Concrete pile, concrete-decked offshore wharf, with two 30- by 60-foot concrete roadway approaches extending from concrete-capped, steel sheet pile bulkhead with solid fill.		Concrete pile, concrete-d offshore wharf, with two 30- 60-foot concrete roadway appro extending from concrete-ca steel sheet pile bulkhead with fill; fronted by vertical r fenders.	
DESCRIPTION	Face	Face	Sides	Face	Sides
Dimensions (Feet)	700	400	50, each	400	50, each
Depth Alongside at MLW Do.	15	33	-	36	-
Breasting Distance Do.	700	400	-	400	-
Total Berthing Space Do.	700	400	-	400	-
Width of Apron Do.	Open.	Open.		Open.	
Height of Deck at MLW Do.	10	10		10	
Load Capacity (Lbs. per Sq. Ft.)	-	-		600	
Lighted or Unlighted	Unlighted.	Lighted.		Lighted.	
TRANSIT SHEDS Number and Description	None.	None.		One - concrete frame, masonry w with concrete floor.	
Length and Width (Feet)				300 by 200	
Height Inside Do.				22	
Floor Area for Cargo (Sq. Ft.)				20,000 (See Remarks).	
Load Capacity (Lbs. per Sq. Ft.)				-	
Cargo Doors				Shipside; two 18- by 16-foot; side, two 18- by 16-foot.	
MECHANICAL HANDLING FACILITIES	None.	One electric, traveling, gantry ship unloader, with 78-foot cantilevered, slewing boom, equipped with 54-foot vertical, screw-conveyor served by 48-inch electric belt-conveyor system extending to elevated gallery along rear of face, unloading rate 600 tons per hour; conveyor system continues via inclined gallery to concrete storage silos at terminal in rear. Facility accommodates self-discharging vessels via four 12-inch pneumatic pipelines extending from wharf to storage silos.		None.	
RAILWAY CONNECTIONS	None.	None.		None.	
HIGHWAY CONNECTIONS	Via Dolphin and Grouper Roads, each asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.	Via Dolphin and Grouper Roads, each asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.		Via Dolphin and Grouper Roads, e asphalt, 24 feet wide, from St Highway 401, asphalt, 40 feet wid	
WATER SUPPLY (For Vessels)	None.	Through 2 1/2-inch line.		Through 2 1/2-inch line.	
ELECTRIC CURRENT (For Vessels)	A.C., 110 volts.	A.C., 110/480 volts.		A.C., 110/220/440 volts.	
FIRE PROTECTION (Other Than City)	Hydrant in rear.	Hydrant and hand extinguishers.		Automatic fire detection sprinkler system in transit sh hydrant and hand extinguishers.	
REMARKS	-	Six concrete storage silos at terminal in rear have total capacity for 39,000 tons of cement. Cement is shipped via 2 truck-loading stations located under silos.		Transit shed is used for gene storage. Approximately 2.5 acres open storage area is located at r of transit shed.	

PS OF ENGINEERS PORT CODE NO.	14150 Dock Code No. 465		14150 Dock Code No. 415		14151 Dock Code No. 085		
ERENCE NUMBER ON MAP NO. 3	25		26		27		
E	Canaveral Port Authority, North Wharf, Nos. 3 and 4.		U.S. Air Force, Cape Canaveral Air Force Station Wharf.		Cape Canaveral Air Force Station, Hangar AF Recovery Slip		
ATION ON WATERFRONT	North side of Canaveral Harbor, west side of Middle Turning Basin approximately 1.4 miles west of outer end of south entrance jetty. 470 Snook Road.		North side of Canaveral Harbor, north side of Middle Turning Basin approximately 1.3 miles west of outer end of south entrance jetty. Cape Canaveral Air Force Station.		East side of Banana River, approximately 0.5 mile south of NASA Causeway East. Hangar AF Canaveral Air Force Station.		
ED BY	Canaveral Port Authority.		United States Government.		United States Government.		
RATED BY	Canaveral Port Authority and Yorke Doliner Export Corp.		U.S. Air Force and Military Traffic Management Command.		National Aeronautics and Space Administration.		
POSE FOR WHICH USED	Shipment of scrap metal; receipt and shipment of general cargo; mooring cruise vessels.		Mooring floating equipment and tugboats; handling military cargo equipment and supplies.		Handling recovered space shuttle solid rocket fuel boosters.		
E OF CONSTRUCTION	Concrete pile, concrete-decked offshore wharf, with five 60- by 30-foot concrete roadway approaches extending from concrete-capped, steel sheet pile bulkhead with solid fill; one concrete pile, concrete-decked breasting platform on south end and 3 timber breasting dolphins on north end in line with face. Wharf is fronted by rubber-cushioned timber and steel fenders.		Concrete-capped, steel sheet pile bulkhead with solid fill; fronted by timber fender system. A roll-on, roll-off ramp of similar construction extends from east side of face. A row of 4 timber breasting dolphins are in line with inner side of west face of roll-on, roll-off ramp and a row of three timber breasting dolphins extends at an angle from outer side of pier providing 150 feet of berthing space in 20 feet of water.		Concrete-capped, steel sheet pile bulkhead with concrete-surfaced solid fill forming slip and lower and upper wharves.		
CRIPTION	Face	Sides	Face	Ramp head	Lower wharf	Slip	Upper wharf
ensions (Feet)	1,140	50, each	500	120 by 40	100	200 by 26	200
th Alongside at MLW Do.	36	-	16-17	16-17	12	12	12
asting Distance Do.	1,540 w/platforms.		500	120+260 w/dolphins	100	200	200
al Berthing Space Do.	1,540		500	120+260	100	200	200
th of Apron Do.	50		Open.	Open.	Open.		Open.
ght of Deck at MLW Do.	10.5		10	10	4		10
d Capacity (Lbs. per Sq. Ft.)	600		300		-	-	-
hted or Unlighted	Lighted.		Lighted.		Lighted.		
HANICAL HANDLING FACILITIES	Yorke Doliner Export Co.: One 250-ton diesel crawler crane with 100- foot boom for loading vessels. One 70- and one 55-ton, diesel crawler cranes, with 95- and 65-foot booms, respectively; and three 7-cubic yard, diesel, crawler front-end loaders for use in scrap metal storage area at rear. Equipment for cranes includes two 60-inch magnets and 6-cubic yard clamshell buckets.		Equipment is available as required.		60-ton mobile straddle carriers are available from hangar in rear as required.		
LWAY CONNECTIONS	None.		None.		None.		
HWAY CONNECTIONS	Via Dolphin and Grouper Roads, each asphalt, 24 feet wide, from State Highway 401, asphalt, 40 feet wide.		Via base roads, paved, various widths, from State Highway 401, asphalt, 40 feet wide.		Via road, from Hangar Road, from NASA Parkway East, all paved, various widths.		
ER SUPPLY (For Vessels)	Through 6-inch line.		Through 2-inch line with 3/4-inch connections.		Through 2-inch line.		
CTRIC CURRENT (For Vessels)	None.		A.C., 100/440; D.C., 110 volts.		A.C., 110/440 volts.		
E PROTECTION her Than City)	Hydrant and hand extinguisher.		Hydrant, water line, hose, and hand extinguishers		Hydrants, hand extinguishers, base fire department.		
ARKS	Open storage area at rear has capacity for approximately 500,000 tons of scrap metal.		Building at rear provides office and storage space.		Building and open area in rear is used for reconditioning space shuttle rocket boosters.		

CORPS OF ENGINEERS PORT CODE NO.	14151 Dock Code No. 900		16358 Dock Code No. 501	16357 Dock Code No. 501
REFERENCE NUMBER ON MAP NO. 3	28		29	30
NAME	Kennedy Space Center Barge Dock.		Orlando Utilities Commission, Indian River Plant Barge Wharf.	Florida Power & Light Co., Cape Canaveral Plant Barge Wharf.
LOCATION ON WATERFRONT	West end of NASA Barge Canal extending from north end of Banana Piver, Kennedy Space Center. Saturn Road		Mile 887.4, west side of Intracoastal Waterway (Indian River), Delespine. 7800 South U.S. Highway 1.	Mile 889.1, west side, Intracoastal Waterway (Indian River), Frontenac, 6000 North U.S. Highway 1.
OWNED BY	United States Government.		Orlando Utilities Commission.	Florida Power & Light Co.
OPERATED BY	National Aeronautics and Space Administration.		Orlando Utilities Commission.	Florida Power & Light Co.
PURPOSE FOR WHICH USED	Receipt of space shuttle components by barge; mooring towboats and barges.		Receipt of fuel oil for plant consumption.	Receipt of fuel oil for plant consumption.
TYPE OF CONSTRUCTION	Concrete-capped, steel sheet pile bulkhead with part concrete-surfaced solid fill.		Concrete pile, concrete-decked wharf, 10 timber breasting dolphins fronting and in line with face.	Concrete pile concrete-decked wharf, row of timber breasting dolphins on each side in line with face.
DESCRIPTION	West side	North side	Face	Face
Dimensions (Feet)	75	300+300+175	215	25
Depth Alongside at MLW Do.	12	12	12	15
Breasting Distance Do.	75 end to	300+300+175	400 w/dolphins	425 w/dolphins
Total Berthing Space Do.	One barge	300+300+175	400	425
Width of Apron Do.	Open.		20	18
Height of Deck at MLW Do.	10		5.5	5.5
Load Capacity (Lbs. per Sq. Ft.)	-		-	-
Lighted or Unlighted	Lighted.		Lighted.	Lighted.
MECHANICAL HANDLING FACILITIES	Equipment is available as required. (See Remarks.)		Two 10-inch, swivel-jointed pipeline loading arms.	Two 10-inch, swivel-jointed pipeline loading arms.
RAILWAY CONNECTIONS	None.		None.	None.
HIGHWAY CONNECTIONS	Via Saturn Road, asphalt, 24 feet wide; from Kennedy Parkway North, from NASA Causeway West, each asphalt, dual lane.		Via plant road from U.S. Highway No.1, asphalt, dual lane.	Via plant road from U.S. Highway No.1, asphalt, dual lane.
WATER SUPPLY (For Vessels)	Through 2-inch line.		None.	Through 3/4-inch line.
ELECTRIC CURRENT (For Vessels)	A.C., 110/220/480 volts.		A.C., 480 volts at 50 amperes.	A.C., 110/220/440 volts.
FIRE PROTECTION (Other Than City)	Hydrant and hand extinguishers.		Pumps, water line, hydrant, hose and hand extinguishers.	Hydrants, hose, hand extinguishers and security petrol.
REMARKS	Barges berth end to- west bulkhead inside a steel frame metal-covered building, space shuttle components are unloaded as roll-on, roll-off cargo.		One 8-inch pipeline extends from wharf to one 340,000-barrel storage tank at power plant in rear.	One 12-inch pipeline extends from wharf to 2 steel storage tanks at power plant in rear, total capacity 500,000 barrels.

OIL HANDLING AND BUNKERING

Six waterfront facilities at the port are equipped to handle petroleum products. Four are located on the south side of Canaveral Harbor and two on the Atlantic Intracoastal Waterway (Indian River); three accommodate deep-draft vessels and provide bunkering service to vessels at berth, and two handle fuel oil for local power plants. In addition, there are five facilities that provide fueling service to small craft from storage tanks supplied by tank truck.

The tabulation below lists the facilities handling petroleum products, with details given in the table of Piers, Wharves, and Docks beginning on page 131 under the reference numbers indicated. Tankage at small craft service stations is not included.

P.W.D. REF. NO.	OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	STORAGE TANKS	
				NO.	CAPACITY (BARRELS)
3 (B)	Coastal Fuels Marketing, Inc.	1,060	35)	13	554,000
4 (B)	do.	800	35)	4	41,000
			)	1	325,000
5 (B)	Gulf Interstate Terminalling Co.	600	35)	1	250,000
6	do.	600	15)		
29	Orlando Utilities Commission	400	12	1	340,000
30	Florida Power & Light Co.	425	15	2	500,000
	TOTALS	-	-	22	2,010,000

(B) Bunkering service.

DRY BULK HANDLING

Cement is received at two of the wharves in the port and scrap metal is shipped at another. A summary tabulation of the bulk material handling capabilities of the three facilities is given below. More detailed information may be found in the table of Piers, Wharves, and Docks.

P.W.D. REF. NO.	OPERATOR	BERTHING SPACE (FEET)	DEPTH ALONGSIDE (FEET)	HANDLING EQUIPMENT TYPE/RATE (TONS/HOUR)	PRODUCTS	STORAGE CAPACITY (TONS)
4	Continental Cement Co. of Florida	800	35	Pneumatic pipelines.	Cement.	32,000 (silos)
23	Rinker Materials Corp.	400	33	Gantry crane with screw-conveyor (600); & pneumatic pipelines	Cement.	39,000 (silos)
25	Yorke Doliner Export Corp.	1,540	36	One 250-ton crane.	Scrap metal.	500,000

WAREHOUSES

The transit shed at Canaveral Port Authority, North Wharf No. 1 (P.W.D. Ref. No. 24) on occasion is available to the public for long-term storage. In addition, Mid-Florida Freezer Warehouses, Ltd. operates a 200,000-square foot dry storage warehouse, and two cold storage warehouses with a total of 2,500,000 cubic feet of convertible freezer/cooler space, all U. S. Customs bonded adjacent to the Canaveral Port Authority General Cargo Wharf (P.W.D. Ref. No. 3). These warehouses are more fully described under individual reference numbers in the table of Storage Warehouses on the following page.

OPEN STORAGE

In addition to the long- and short-term, covered storage facilities for waterborne cargo, there are approximately 150 acres of open storage area developed, or in various stages of development, owned and controlled by Canaveral Port Authority on the north side of the harbor and approximately 10 acres located on the south side of the harbor. A tabulation of open storage areas is provided in the Summary of General Cargo Facilities on page 129.

HOISTING EQUIPMENT - ASHORE AND AFLOAT

Conventional general cargo is usually handled to and from vessels by ships' tackle. Crawler and mobile cranes with lifting capacities up to 70 tons, boom lengths to 200 feet, are available - either through stevedoring companies serving Port Canaveral, or from crane rental services in nearby Cocoa Beach or Cocoa, Florida.

Port Canaveral Marina, Inc. (P.W.D. Ref. No. 14) operates a 45-ton diesel crawler crane with 65-foot boom mounted on a 100- by 28-foot barge, which may be used for heavy lifts at shipside by special arrangement.

MARINE REPAIR PLANTS AND DRYDOCKING EQUIPMENT

Three marine repair plants, Port Canaveral Marina, Inc. (P.W.D. Ref. No. 14), Port Canaveral Maintenance and Fabrication, Inc. (P.W.D. Ref. No. 16) and Brevard Shipyard (P.W.D. Ref. No. 19) have waterfront facilities and are equipped to make above-waterline repairs to small vessels. Brevard Shipyard operates a 300-ton floating drydock and the Port Canaveral Marina, Inc. has a 100-ton, traveling, vertical boat lift capable of hauling out a vessel up to 23.5-foot beam and/or 85-foot length, within the capacity of the lift. In addition, there are 2 plants without waterfront facilities that perform various repairs and maintenance to vessels at berth. Details of these plants are given in the table of Marine Repair Plants on pages 145 and 146.

The nearest facilities for drydocking large, deep-draft vessels are at Jacksonville, Florida and are described in the Port Series No. 15, titled "The Ports of Jacksonville and Fernandina Beach, Florida," last revised in 1986.

STORAGE WAREHOUSES

WAREHOUSE REF. NO.	1		2	
OPERATOR AND ADDRESS	Mid-Florida Freezer Warehouses, Ltd. P. O. Box 572/9012 Herring Street Cape Canaveral, FL 32920		Mid-Florida Freezer Warehouses, Ltd. P. O. Box 572/9012 Herring Street Cape Canaveral, FL 32920	
BUILDING DESIGNATION/S	Metal building.		North room.	
LOCATION	Rear of P.W.D. Ref. No. 3.		Rear of P.W.D. Ref. No. 3.	
KIND OF STORAGE	Dry.		Cold.	
COMMODITIES USUALLY STORED	General merchandise.		Perishable food commodities including orange juice, poultry, meats, and seafood.	
DESCRIPTION Type of Construction	Steel frame, metal siding, concrete floor.		Steel frame, metal siding, concrete floor.	
Number of Floors	One.		One.	
Clear Height for Storage (feet):				
First Floor....................	18		22	
Other Floors...................	-		-	
Load Capacity (Lbs/Sq.Ft.):				
First Floor....................	2,000		1,000	
Other Floors...................	-		-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE	DRY STORAGE	COLD STORAGE
General Storage........(Sq.Ft.)	200,000	-	-	100,000
U.S. Customs Bonded...(Sq.Ft.)	Available.	-	-	1,000,000
Cooler Space...........(Cu.Ft.)	-	-	-	-
Freezer Space..........(Cu.Ft.)	-	-	-	-
Convertible Space......(Cu.Ft.)	-	-	-	1,000,000
RAILWAY CONNECTIONS	None.		None.	
TRUCKLOADING STATIONS	None. (See Remarks)		Sixteen.	
HANDLING EQUIPMENT	Approximately eighty 1 1/2- to 4-ton forklift trucks available at Port Canaveral Warehouses and company-owned facilities located at Leesburg, FL and Plymouth, FL.		See Ref. No. 1.	
FIRE PROTECTION	Automatic fire detection and sprinkler system, hydrant, and hand extinguishers.		Automatic fire detection and dry sprinkler system, hydrant, and hand extinguishers.	
REMARKS	Use of 6 truckloading platforms at South Room (S.W. Ref. No. 3) and portable truck ramps Company has 16 acres of open storage area. (See Remarks, S.W. Ref. No. 2.)		Warehouse is equipped with a direct expansion ammonia system, temperature range to -5°F. All of the convertible space is customs bonded. Company also operates 4,000,000 cubic feet of freezer, and 10,000 sq ft of dry storage space at Leesburg, FL; and 3,000,000 cu ft of freezer space at Plymouth, FL. An orange juice blending facility is located in warehouse.	

STORAGE WAREHOUSES (CONT.)

WAREHOUSE REF. NO.	3	
OPERATOR AND ADDRESS	Mid-Florida Freezer Warehouses, Ltd. P. O. Box 572/9012 Herring Street Cape Canaveral, FL 32920	
BUILDING DESIGNATION/S	South room.	
LOCATION	Rear of P.W.D. Ref. No. 2.	
KIND OF STORAGE	Cold.	
COMMODITIES USUALLY STORED	Perishable food commodities including orange juice, poultry, meats, and seafood.	
DESCRIPTION Type of Construction	Steel frame, metal siding, concrete floor.	
Number of Floors	One.	
Clear Height for Storage (ft):		
First Floor......................	22	
Other Floors.....................	-	
Load Capacity (Lbs/Sq.Ft.):		
First Floor......................	1,000	
Other Floors.....................	-	
AREAS FOR PUBLIC STORAGE:	DRY STORAGE	COLD STORAGE
General Storage..........(Sq.Ft.)	-	40,000
U.S. Customs Bonded......(Sq.Ft.)	-	1,500,000
Cooler Space.............(Cu.Ft.)	-	-
Freezer Space............(Cu.Ft.)	-	-
Convertible Space........(Cu.Ft.)	-	1,500,000
RAILWAY CONNECTIONS	None.	
TRUCKLOADING STATIONS	Six.	
HANDLING EQUIPMENT	Approximately eighty 1 1/2- to 4-ton forklift trucks available at Port Canaveral Warehouses and company-owned facilities located at Leesburg, FL and Plymouth, FL.	
FIRE PROTECTION	Automatic fire detection and dry sprinkler system, hydrant, and hand extinguishers.	
REMARKS	Warehouse is equipped with a direct expansion ammonia system, temperature range to -5°F as required. All of the convertible space is U.S. Customs bonded. (See Remarks S.W. Ref. No. 2).	

MARINE REPAIR PLANTS

NEAREST P.W.D. REF. NO.	14	16
OPERATOR AND ADDRESS	Port Canaveral Marina, Inc. P. O. Box 693 25 Mullet Road Cape Canaveral, FL 32920	Port Canaveral Maintenance and Fabrication, Inc. Snapper Road, Port Canaveral Cape Canaveral, FL 32920
LOCATION OF PLANT	South side of Canaveral Harbor, approximately 800 feet southeast of State Highway 401 Bridge.	North side of Canaveral Harbor, northeast portion of West Turning Basin.
REPAIR SHOPS AND EQUIPMENT	Shops: electrical and electronics, engine welding, and fabrication and paint; one 100-ton, traveling vertical boat lift; one 45-ton, diesel, crawler crane on 100- by 28-foot barge, and one 20-ton, diesel, mobile crane with 60-foot telescopic boom.	Shops: machine, welding and fabrication, and hydraulic, portable tools, 2 1/2-ton hoist, and rental equipment as required.
NATURE OF WORK UNDERTAKEN	Above- and below-waterline repairs to steel and aluminum hulls up to capacity of vertical boat lift; repairs to gasoline and diesel engines, hydraulic motors, pumps, and deck machinery, welding and fabrication; complete towing and salvage service.	Above-waterline repairs to steel and aluminum hulls; repairs to engines, hydraulic motors, pumps, and deck machinery, welding and fabrication.
LARGEST SHAFTS PRODUCED	By contract.	None.
VESSEL CAPACITY AT PLANT	Numerous berths with 12-foot depth at MLW.	Two hundred feet of wharf with 10-foot depth at MLW.
DRYDOCKING EQUIPMENT	Mobile boat lift.	-
Length of berth............(ft.)	60	-
Clear width................(ft.)	23	-
Depth......................(ft.)	11	-
Lifting force........(long tons)	100	-
Mean tidal variation.......(ft.)	2	-
Largest vessel handled.........	65 by 20	-
Year built/rebuilt.............	-	-
Utilities available............	Water, compressed air, and AC 110 volts.	
REMARKS	Repair work done at plant on vessels up to 100 feet in length and on board vessels at berth in harbor.	Repair work done at plant and on board vessels at berth in harbor. Company also handles marine hardware including blocks, winches, and tackle for trawlers.

pages tightly bound

MARINE REPAIR PLANTS (CONT.)

NEAREST P.W.D. REF. NO.	-	-	19
OPERATOR AND ADDRESS	Canaveral Ship Repair, Inc. 100 George King Boulevard Cape Canaveral, FL 32920	KMD Ship Repair 9049 Jetty Road Cape Canaveral, FL 32920	Brevard Shipyard 9185 Grouper Road Cape Canaveral, FL 32920
LOCATION OF PLANT	Same as above.	Same as above.	West Turning Basin.
REPAIR SHOPS AND EQUIPMENT	Machine shop; portable welding units and power tools; air compressors.	General repair shop; portable welding units and power tools; air compressors; sandblasting equipment; one 10-ton mobile hoist.	Machine and general repair shops; portable welding units and power tools; air compressors; one 10-ton mobile hoist and one floating drydock.
NATURE OF WORK UNDERTAKEN	Above-waterline general repairs of any nature to steel hulls; painting and sandblasting.	Above-waterline general repairs of any nature to steel hulls, painting and sandblasting.	Above- and below-waterline general repairs; steel and aluminum hull repair; conversions; sandblasting and painting.
LARGEST SHAFTS PRODUCED	Lathe: 24-inch swing by 12-foot bed.	Lathe: 24-inch swing by 12-foot bed.	2 1/2-inch by 10 feet
VESSEL CAPACITY AT PLANT	-	-	One in drydock; 15-20 at wharf.
DRYDOCKING EQUIPMENT	None.	None.	Floating drydock, steel, one section.
Length overall............(ft.)			120
Length of blocks..........(ft.)			85
Width overall.............(ft.)			78
Clear width for vessel....(ft.)			60
Maximum depth over blocks.(ft.)			10 (2-foot blocks)
Pool depth................(ft.)			-
Lift capacity.......(long tons)			300
Mean tidal variation......(ft.)			3
Largest vessel handled.........			135 by 22
Year built/rebuilt.............			1979
Utilities available............			Water, compressed air, and AC 110/220 volts.
REMARKS	-	Work is performed primarily on naval and other Governmental craft.	-

FLOATING EQUIPMENT

Port Canaveral Towing, Subsidiary of Hvide Shipping, Inc., P. 0. Box 62, Cape Canaveral, Florida 32920, performs towing, docking, and undocking services for vessels at the Port Canaveral. This company (P.W.D. Ref. No. 21) operates the following twin-screw diesel-powered tugs:

NAME	OVERALL LENGTH (FEET)	WIDTH (FEET)	DRAFT UNDER LOAD (FEET)	HORSEPOWER
Captain Brinn	85	25	10	2,140
Brevard	82	23	12	2,400
Cape Canaveral	107	30	14	4,200

Company-owned tugs described under the floating equipment paragraph in the Port Everglades section of this report, are also available as required.

Additional information on floating equipment can be obtained from "Waterborne Transportation Lines of the United States." This publication is described under "Floating Equipment" in the Miami section of this report.

RAIL LINES

There is no rail service to Port Canaveral. The Florida East Coast Railroad serves the city of Cocoa approximately 9 miles west of Port Canaveral on the mainland.

INDEX OF PIERS, WHARVES, AND DOCKS FOR MIAMI, FLORIDA

OPERATOR AND FACILITY	P.W.D. REF. NO.	MAP NO.	PAGE NO.
Antillean Marine Shipping Corp.			
Wharf	49	2	42
Atco Marine Service, Inc. Dock	34	2	37
Auto-Marine Engineers, Inc. Dock	53	2	43
Backus, Howard, Towing, Inc.			
Wharf and Slip	74	2	50
Bahamas International Co., Ltd.			
Wharf	83	2	53
Banana Supply Co., Inc. Wharf	23	1	33
Bay View Marine Terminal, Inc.			
Wharf	65	2	47
Bernuth Marine Shipping, Inc.			
Dock No. 1	68	2	48
Dock No. 2	66	2	47
Best Terminal, Inc. Dock	52	2	43
Better Bait Supply, Inc. Dock	36	2	37
Bimini Boatyard of Miami, Inc.			
Wharf	81	2	52
Biscayne Bay Pilots Association			
Wharf	19	1	31
Byrd Diving & Salvage, Inc. Wharf.	64	2	47
Carib Ocean Shipping, Inc.			
River Marine Terminal Wharf	59	2	45
Bernett, Carlo			
Bernett's Mooring	63	2	46
Coastal Fuels Marketing, Inc.			
Fisher Island Terminal			
Dock and Slip	3	1	25
Dade, County of			
Marine Patrol, Public Safety			
Department, Boat Wharf	75	2	50
Public Works Department,			
Highway Construction and			
Maintenance Wharf	32	2	36
Water Control Wharf	46	2	41
Seaport Department			
Port of Miami			
Dodge Island			
West Wharf, Berths			
Nos. 7 and 6	13	1	29
South Wharf			
Bays 67 through 76	22	1	33
Bays 85 through 97	25	1	34
Southwest Passenger			
Terminal Wharf	26	1	34
North Wharf			
Bays 1 through 20	14	1	29
Bays 21 through 40	15	1	30
Bays 41 through 54	16	1	30
Bays 55 through 62	17	1	31
Dodge/Lummus Island			
South Roll-on, Roll-off			
Wharf	21	1	32
Lummus Island			
North Barge Mooring	18	1	31
Container Wharf	20	1	32
Dawson Marine Service, Inc. Wharf	86	2	54
Diesel Engine & Clutch Repair, Inc.			
Wharf	87	2	54
East Coast Fisheries, Inc.			
Main Wharf	33	2	36
Wharf	31	2	36
East River Terminals, Inc. Wharf	47	2	41
Ebsary Foundation Co.			
Slip and Wharves	45	2	40
Florida Carib Fishery, Inc. Wharf	84	2	53
Florida Power and Light Co.			
Miami Beach Wharf	8	1	27
Miami River Wharf	30	2	35
Garcia Service Station Dock	35	2	37
Hempstead Marine Slip	56	2	44
Hewes, Robert and Lewis			
**Dock	37	2	38
Hyde Shipping Corp. Wharf	48	2	41
Island Developers, Ltd.			
Fisher Island Ferry Dock	2	1	25
Fisher Island Barge Slip	4	1	26
MacArthur Causeway Ferry Dock	9	1	27
Island Terminal Co.			
General Cargo Wharves	6	1	26
Jones Boat Yard, Inc.			
Upper Wharf and Piers	61	2	46
Lower Wharf and Slip	62	2	46
Key Power, Inc. Slip	71	2	49
Kreidt, Captain Wallace G.			
*Dock	82	2	53
Lovelace, Michael, Dock	51	2	42
Merrill-Stevens Dry Dock Co.			
Main Yard			
East Pier	39	2	38
Fitting-Out Dock	43	2	40
Mid-Slip Repair Pier	41	2	39
Merrill-Stevens Dry Dock Co.			
Main Yard			
Slip No. 2 Repair Wharf	42	2	39
Slip No. 3 Repair Wharf	40	2	39
Storage Slip No. 1	44	2	40
South Yard No. 1			
Wharf and Boat Basin	73	2	50
Mesa Marine Repairs, Inc. Slips	72	2	49
Miami, City of			
Department of Stadiums			
and Marinas			
Miamarina Basin Commercial			
Boat Moorings	27	1	34
Miamarina Outer Wall			
Mooring	28	1	35
Watson Island Wharf	11	1	28
Miami Beach, City of			
Causeway Island Wharf	7	1	27
Miami Herald Publishing Co., Inc.			
Barge Dock	12	1	28
Miami River Recycling, Inc. Wharf	55	2	44
Miami Ship Services, Inc.			
*Miami Shipyards Wharf	85	2	54
Miami Shipyards Corp.			
*Miami Shipyards Wharf	85	2	54
Miami, University of			
*Rosenstiel School of Marine			
and Atmospheric Sciences			
Station Slip	1	1	25
Moby Marine Corp., Inc. Wharf	57	2	44
*Waterfront Construction,			
Wharf and Slip	54	2	43
Moorings Yacht Services, The			
Florida Yacht Basin Slip and			
Wharf	70	2	49
National Fisheries, Inc.			
Upper Wharf	79	2	52
Lower Wharf	80	2	52
Norseman Shipbuilding Corp. Wharf	77	2	51
Pioneer Shipping, Inc. Wharf	50	2	42
Riverside Shipping, Inc. Wharf	78	2	51
Sierra Sea Food, Inc., Mooring	38	2	38
Southern & Caribbean Agencies, Inc.			
Air-Marine Terminal Wharf	60	2	45
Star Marine Terminal, Inc., Wharf	69	2	48
Tropical Trading Corp.			
*Universal Shipping Agency			
Wharf	67	2	48
Trujillo Ship Services, Inc.			
Marine Cargo Terminal Wharf	76	2	51
United States Government			
National Oceanic and Atmospheric			
Administration, Department of			
Commerce, Southeast Marine			
Support Facility Wharves	24	1	33
U. S. Coast Guard Base Miami			
Beach, Mooring Wharves	5	1	26
U. S. Customs Service, Southeast			
Region, Tactic Enforcement			
Wharf	88	2	55
U. S. Geological Survey			
*Miami, University of,			
Rosenstiel School of Marine			
and Atmospheric Sciences			
Station Slip	1	1	25
Universal Shipping Agency			
*Universal Shipping Agency Wharf	67	2	48
Victoria Shipping Line, Inc. Wharf	29	2	35
Waterfront Construction, Inc.			
Wharf and Slip	54	2	43
Watson Island Fuel & Fishing Supply			
Wharf	10	1	28
West River Terminals, Inc.			
Wharf	58	2	45

INDEX OF PIERS, WHARVES, AND DOCKS FOR PORT EVERGLADES, FLORIDA

OPERATOR AND FACILITY	P.W.D. REF. NO.	MAP NO.	PAGE NO.
Continental Cement Co.			
*Port Everglades Authority, Berths 14 and 15	10	3	89
Crowley Maritime Corp.			
Port Everglades Authority, Southport Container Wharf, Berth No. 33	18	3	92
Hvide Shipping, Inc.			
*Port Everglades Authority, Pier 6	3	3	86
Nova University Oceanographic Center Boat Basin	1	3	86
Port Everglades Authority			
Pier 6	3	3	86
Berths 1, 2, and 3	4	3	87
Berth 4	5	3	87
Berth 4A	6	3	87
Berths 5 and 6	7	3	88
Berths 7, 8, 8A, 9, and 10	8	3	88
Berths 11, 12, 13, and 13A	9	3	88
*Berths 14 and 15	10	3	89
Port Everglades Authority			
Berths 16, 17, and 18	11	3	89
Berths 19 and 20	12	3	90
Berths 21, 22, 24 and 25	13	3	90
*Berths 26 and 27	14	3	90
Mid-town Basin and Pier, Berth 28	15	3	91
Berth 29	16	3	91
Southport Container Wharf, Berths 31 and 32	17	3	92
Port Everglades Towing Co., Division of Hvide Shipping, Inc.			
*Port Everglades Authority, Berths 26 and 27	14	3	90
Rinker Portland Cement Corp.			
*Port Everglades Authority, Berths 14 and 15	10	3	89
United States Government			
U. S. Coast Guard Fort Lauderdale Station Boat Basin	2	3	86

* Various operators.

INDEX OF PIERS, WHARVES, AND DOCKS FOR PALM BEACH, FLORIDA

OPERATOR AND FACILITY	P.W.D. REF. NO.	MAP NO.	PAGE NO.
Atlantic Undersea Testing and Evaluation Center			
*Port of Palm Beach Roll-on Roll-off Berths Nos. 10, 11, and 12	7	3	111
Blue Carib, Inc.			
*Port of Palm Beach Roll-on Roll-off Berths Nos. 10, 11, and 12	7	3	111
Board of Commissioners of the Port of Palm Beach District			
Port of Palm Beach			
Berth No. 1	1	3	109
*Berths Nos. 2 and 3	2	3	109
Berth No. 4	3	3	110
*Berths Nos. 5 and 6	4	3	110
Berth No. 7	5	3	111
Berths Nos. 8 and 9	6	3	111
*Roll-on Roll-off Berths Nos. 10, 11, and 12	7	3	111
*Berths Nos. 13 and 14	8	3	112
*Berths Nos. 15, 16, and 17	9	3	112
Crown Cruise Line, Inc.			
Port of Palm Beach			
*Berths Nos. 13 and 14	8	3	112
*Berths Nos. 15, 16, and 17	9	3	112
Eastern Cement Corp.			
*Port of Palm Beach, Berths Nos. 5 and 6	4	3	110
Florida Molasses Exchange, Ltd.			
* Port of Palm Beach Berth No. 1	1	3	109
Florida Molasses Exhange, Ltd.			
Port of Palm Beach			
*Berths Nos. 2 and 3	2	3	109
Florida Power and Light Co.			
Port of Palm Beach			
*Berths Nos. 2 and 3	2	3	109
*Berths Nos. 5 and 6	4	3	110
Florida Sugar Marketing and Terminal Association, Inc.			
*Port of Palm Beach, Berth Nos. 2 and 3	2	3	109
LaFarge Corp.			
*Port of Palm Beach, Berths Nos. 5 and 6	4	3	110
Tecmarine, Inc.			
*Port of Palm Beach, Roll-on Roll-off Berths Nos. 10, 11, and 12	7	3	111
Tropical Shipping Co., Ltd.			
Port of Palm Beach			
Berths Nos. 18 and 19	10	3	112
Roll-on Roll-off Berths Nos. 20, 21, and 22	11	3	113
Berths Nos. 23, 24, and 25	12	3	113
United States Government			
U.S. Coast Guard Station, Lake Worth Inlet Piers	13	3	113
Williams Shipping, Inc.			
*Port of Palm Beach Roll-on Roll-off Berths Nos. 10, 11, and 12	7	3	111

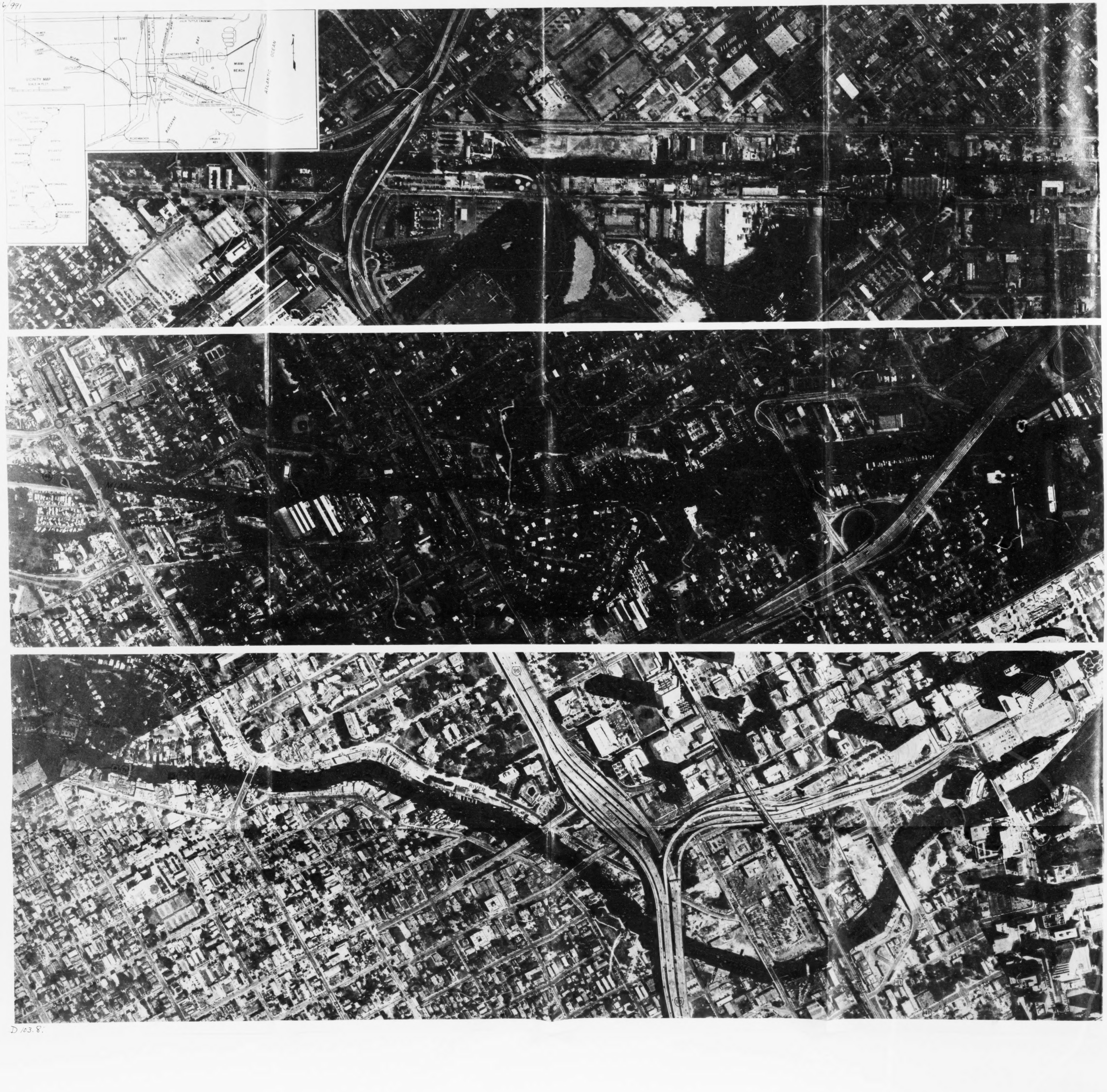
* Various operators.

INDEX OF PIERS, WHARVES, AND DOCKS FOR PORT EVERGLADES, FLORIDA

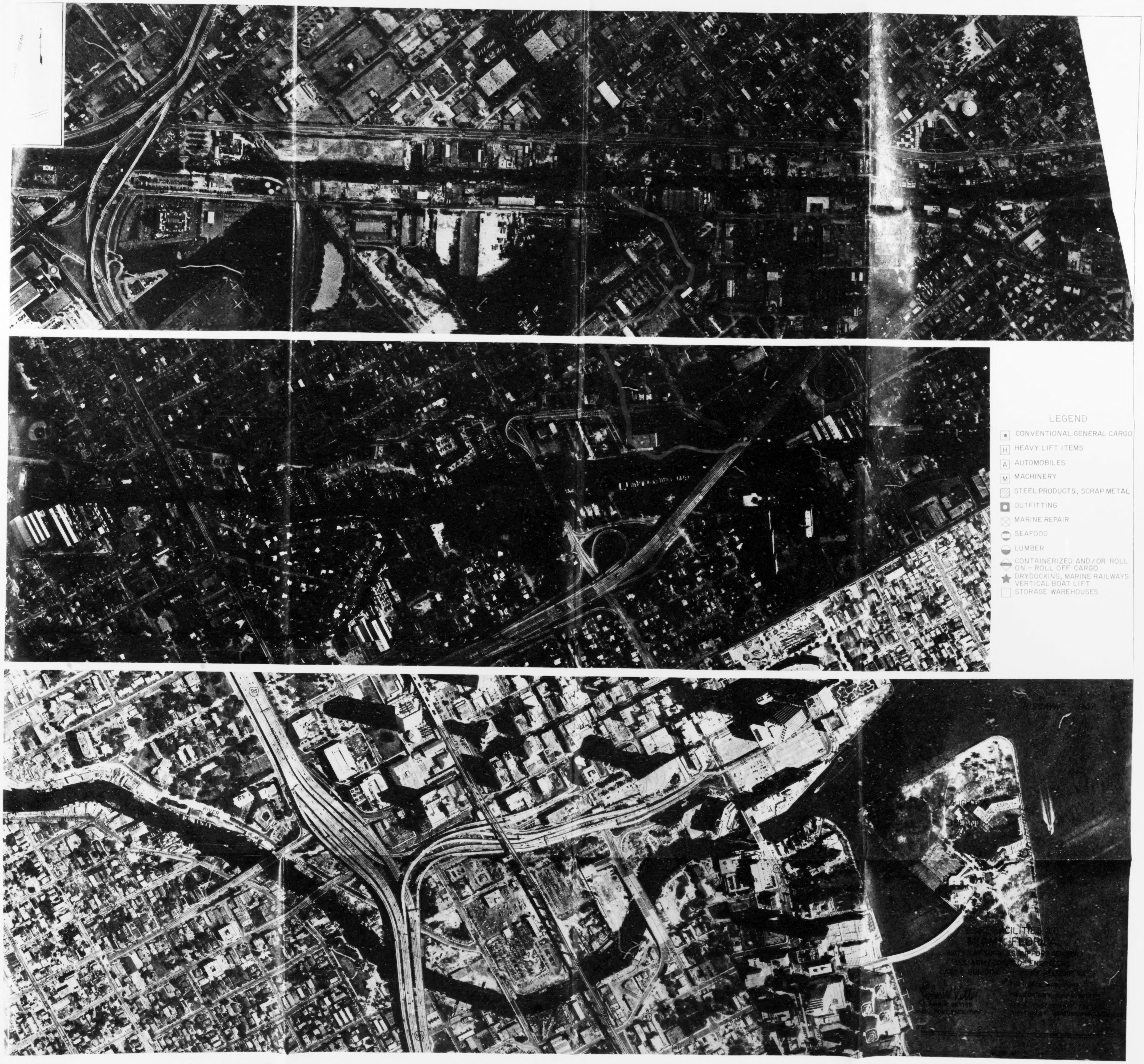
OPERATOR AND FACILITY	P.W.D. REF. NO.	MAP NO.	PAGE NO.
Brevard Shipyard, Inc.			
Wharf	19	3	137
Canaveral Charter Boats, Inc.			
*Fischers Seafood Wharf	8	3	133
Canaveral Port Authority			
Cruise Terminal			
No. 4 Wharf	1	3	131
Nos. 2 and 3 Wharf	2	3	131
*Fishing Fleet Basin	16	3	136
*General Cargo Wharf	3	3	131
*West Turning Basin Wharf	15	3	135
*North Wharf, Nos. 3 and 4	25	3	139
Canaveral Seafood, Inc.			
Dolphin Road Mooring Wharf	22	3	138
*Dolphin's Leap Marina Piers and Mooring Wharf	7	3	133
Wharf	10	3	134
Cape Seafoods, Inc.			
Wharf	12	3	134
Coastal Fuels Marketing Inc.			
Canaveral Port Authority			
*General Cargo Wharf	3	3	131
*Tanker Berth No. 1	4	3	132
Continental Cement Co. of Florida			
Canaveral Port Authority Tanker Berth No. 1	4	3	132
Dolphin's Leap Marina			
*Piers and Mooring Wharf	7	3	133
Fischers Seafood, division of Cape Seafoods Inc.			
*Seafood Wharf	8	3	133
Florida Power & Light Co.			
Cape Canaveral Plant Barge Wharf.	30	3	140
Gulf Interstate Terminalling Co.			
Canaveral Port Authority			
Tanker Berth No. 2	5	3	132
Barge Berth	6	3	132
Harbor Fuel and Ice Co.			
*Fischers Seafood Wharf	8	3	133
Lambert International Fisheries, Inc.			
Canaveral Port Authority West Turning Basin East Wharf	20	3	137
Dock	11	3	134
Mid-Florida Freezer Warehouses, Ltd.			
*Canaveral Port Authority General Cargo Wharf	3	3	131
Orlando Utilities Commission.			
Indian River Plant Barge Wharf	29	3	140
Pelican Party Boats, Inc.			
*Fleet Landing	9	3	133
Port Canaveral Marina, Inc.			
West Pier	14	3	135
Port Canaveral Maintenance and Fabrication, Inc.			
Wharf	17	3	136
Port Canaveral Towing, subsidiary of Hvide Shipping, Inc.			
Wharf	21	3	137
Rinker Materials Corp.			
Port Canaveral Wharf	23	3	138
Southern Seafoods			
Wharf	13	3	135
United States Government			
Military Traffic Management Command			
*U.S. Air Force, Cape Canaveral Air Force Station Wharf	26	3	139
National Aeronautics and Space Administration			
Cape Canaveral Air Force Station, Hangar AF Recovery Slip	27	3	139
Kennedy Space Center Barge Dock	28	3	140
*U.S. Air Force			
Cape Canaveral Air Force Station Wharf	26	3	139
U.S. Coast Guard Station Port Canaveral Wharf	18	3	136
U.S. Navy			
Canaveral Port Authority, North Wharf, No. 1	24	3	138
Yorke Doliner Export Corp.			
*Canaveral Port Authority, North Wharf, Nos. 3 and 4	25	3	139

* Various operators.

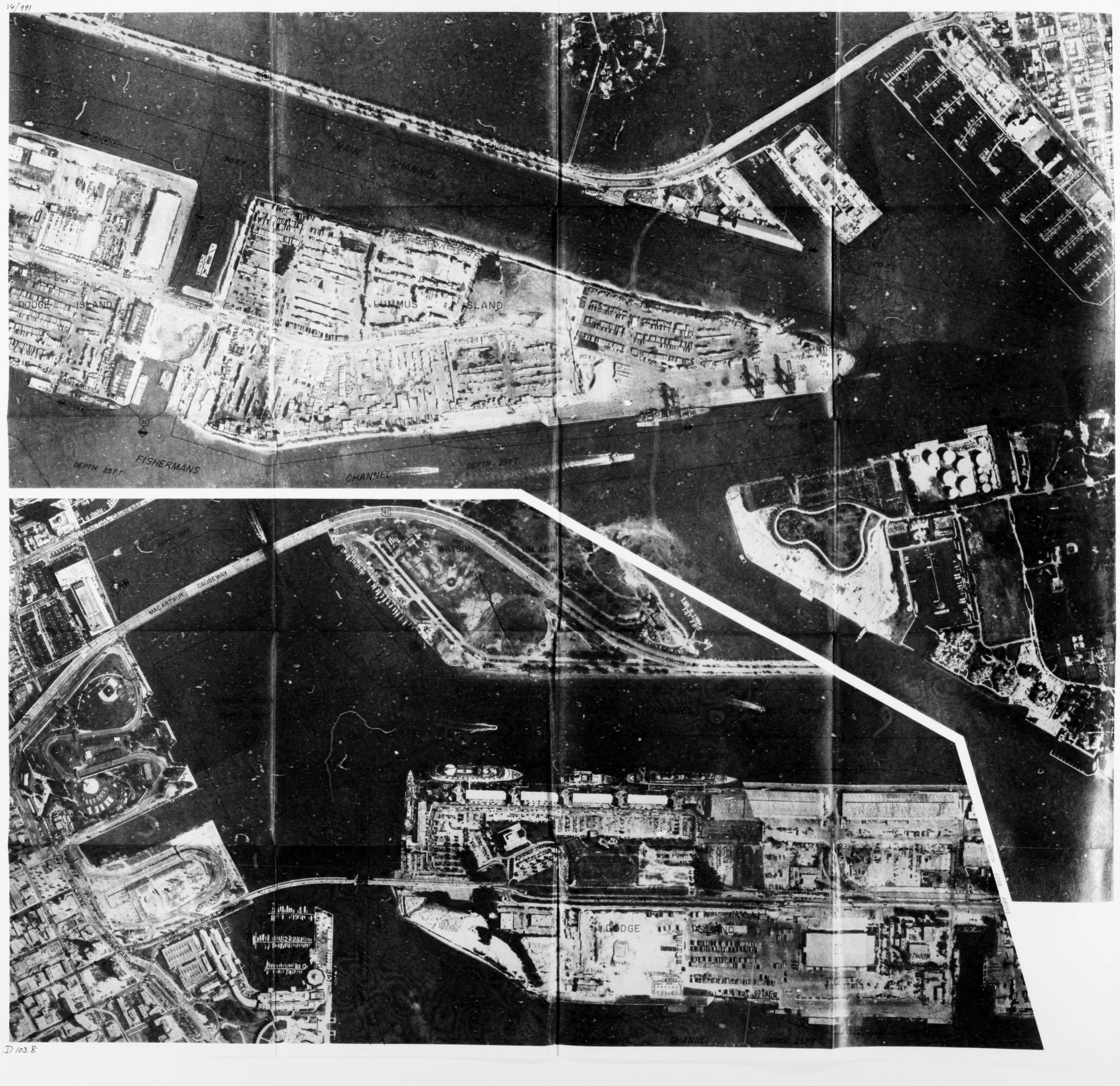
16/991


VICINITY MAP
SCALE IN FEET
5000
0
5000
JULIA TUTTLE CAUSEWAY
PALMER LAKE
MIAMI
TAMIAMI CANAL
MIAMI
RIVER
BAY
VENETIAN CAUSEWAY
MIAMI BEACH
ATLANTIC OCEAN
N
MACARTHUR CAUSEWAY
DODGE ISLAND
LUMMUS IS
CLAUGHTON IS
FISHER ISLAND
BISCAYNE
RICKENBACKER CAUSEWAY
VIRGINIA KEY
WILMINGTON
GEORGETOWN
CHARLESTON
GEORGIA
SAVANNAH
NORTH ATLANTIC OCEAN
BRUNSWICK
JACKSONVILLE
CAPE CANAVERAL
FLORIDA
GULF OF MEXICO
TAMPA
PALM BEACH
PORT EVERGLADES
MIAMI
MIAMI
RIVER

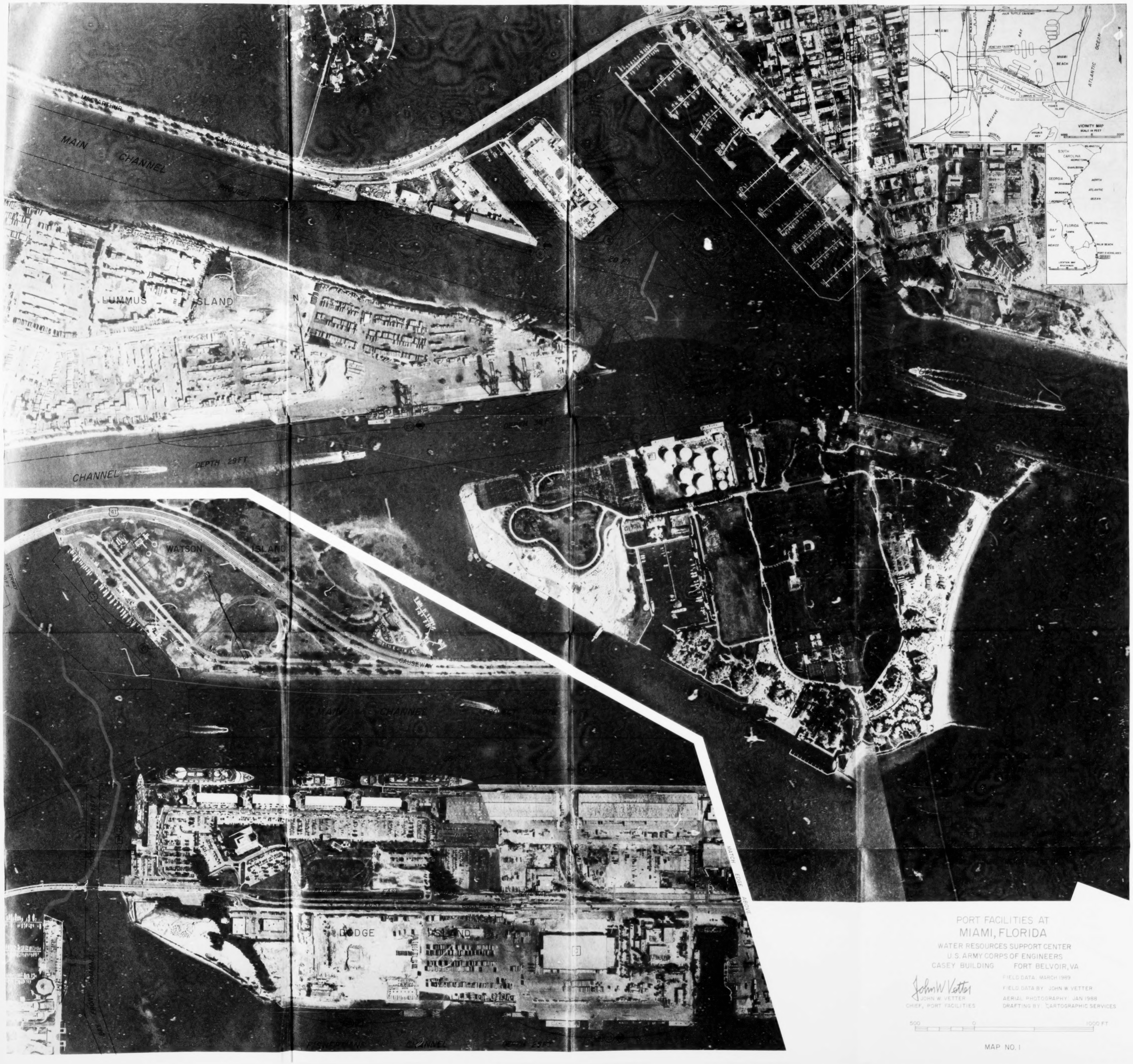
D 103.8:


LEGEND
CONVENTIONAL GENERAL CARGO
HEAVY LIFT ITEMS
AUTOMOBILES
MACHINERY
STEEL PRODUCTS, SCRAP METAL
OUTFITTING
MARINE REPAIR
SEAFOOD
LUMBER
CONTAINERIZED AND/OR ROLL ON – ROLL OFF CARGO
DRYDOCKING, MARINE RAILWAYS VERTICAL BOAT LIFT
STORAGE WAREHOUSES
RIVER
95
PORT FACILITIES AT
MIAMI, FLORIDA
WATER RESOURCES SUPPORT CENTER
U.S. ARMY CORPS OF ENGINEERS
CASEY BUILDING, FORT BELVOIR, VA
John W. Vetter
JOHN W. VETTER
CHIEF, PORT FACILITIES

16/991


MAIN CHANNEL
30 FT
FLORIDA EAST COAST
DODGE ISLAND
LUMMUS ISLAND
PORT BOULEVARD
FISHERMANS CHANNEL
DEPTH 25 FT
DEPTH 25 FT
VENETIAN CAUSEWAY
WATSON ISLAND
MAC ARTHUR CAUSEWAY
CAUSEWAY
CHANNEL
DODGE ISLAND
BOULEVARD
CHANNEL
DEPTH 25 FT

D 103.8:


MAIN CHANNEL
LUMMUS ISLAND
CHANNEL DEPTH 29FT
WATSON ISLAND
CAUSEWAY
MAIN CHANNEL
DODGE ISLAND
FISHERMANS CHANNEL DEPTH 29FT
MIAMI
MIAMI BEACH
ATLANTIC OCEAN
VICINITY MAP
SOUTH CAROLINA
GEORGIA
FLORIDA
NORTH ATLANTIC OCEAN
GULF OF MEXICO

PORT FACILITIES AT
MIAMI, FLORIDA

WATER RESOURCES SUPPORT CENTER
U.S. ARMY CORPS OF ENGINEERS
CASEY BUILDING FORT BELVOIR, VA

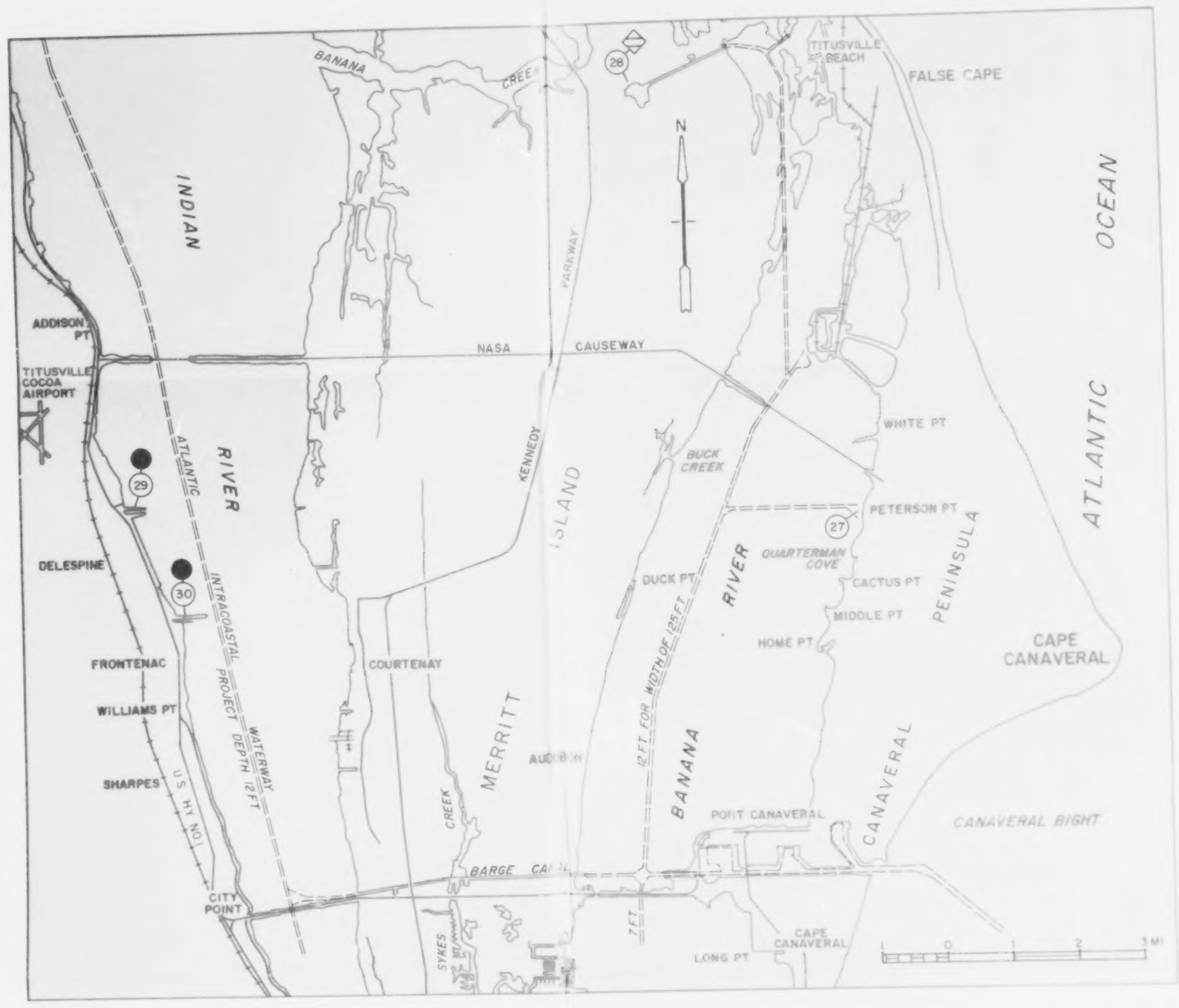
John W Vetter
JOHN W. VETTER
CHIEF, PORT FACILITIES

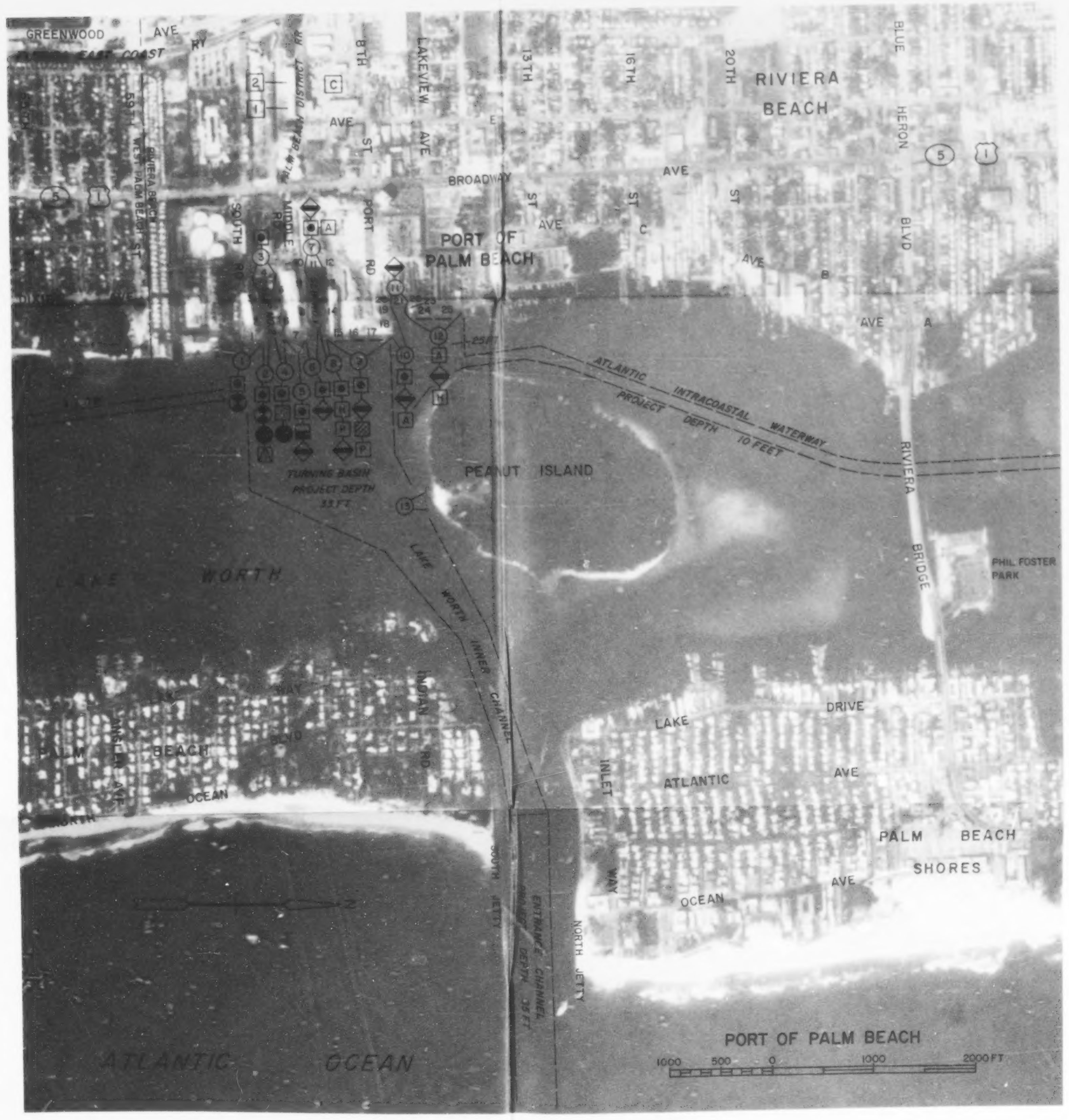
FIELD DATA: MARCH 1989
FIELD DATA BY: JOHN W. VETTER
AERIAL PHOTOGRAPHY: JAN 1988
DRAFTING BY: CARTOGRAPHIC SERVICES

500 0 1000 FT

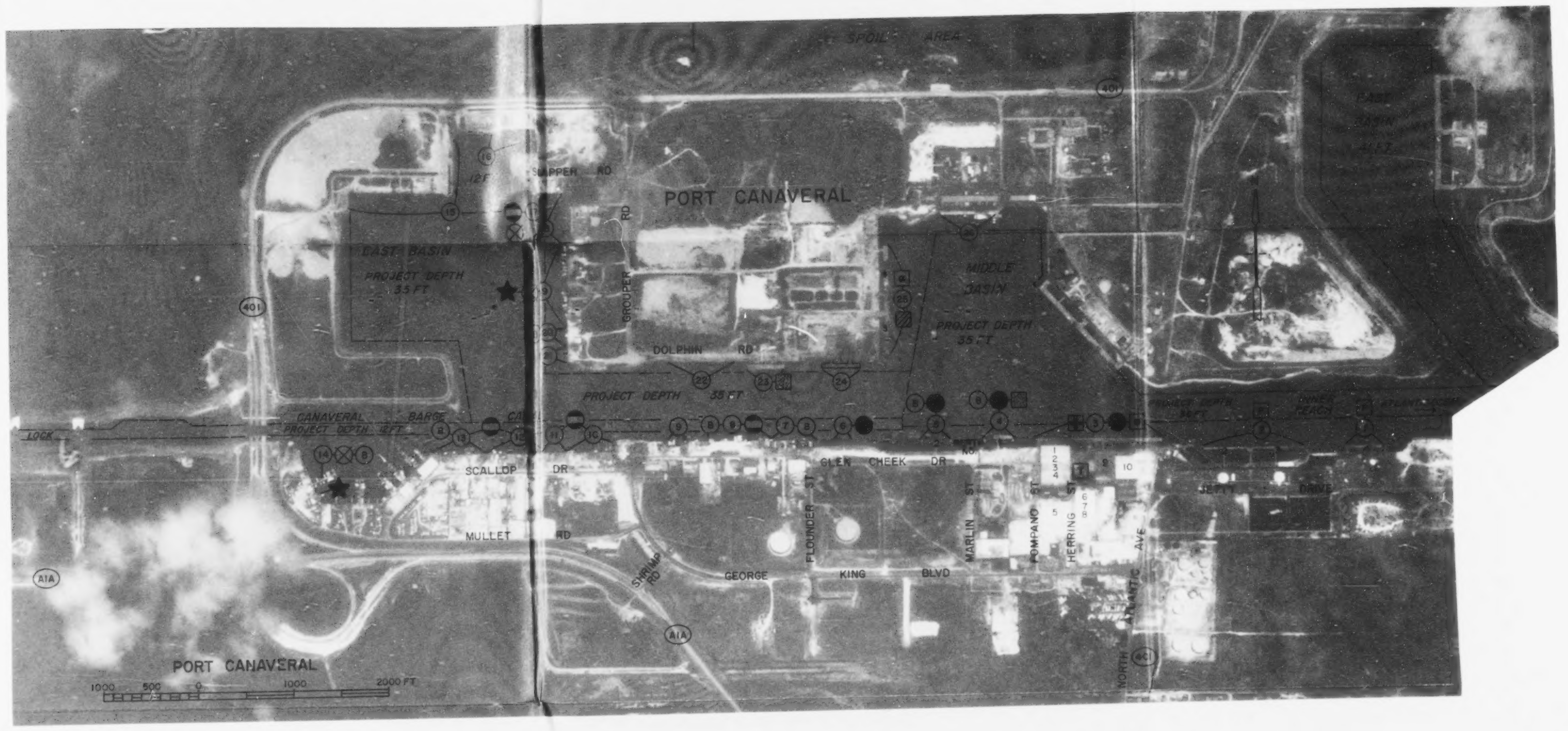
MAP NO. 1

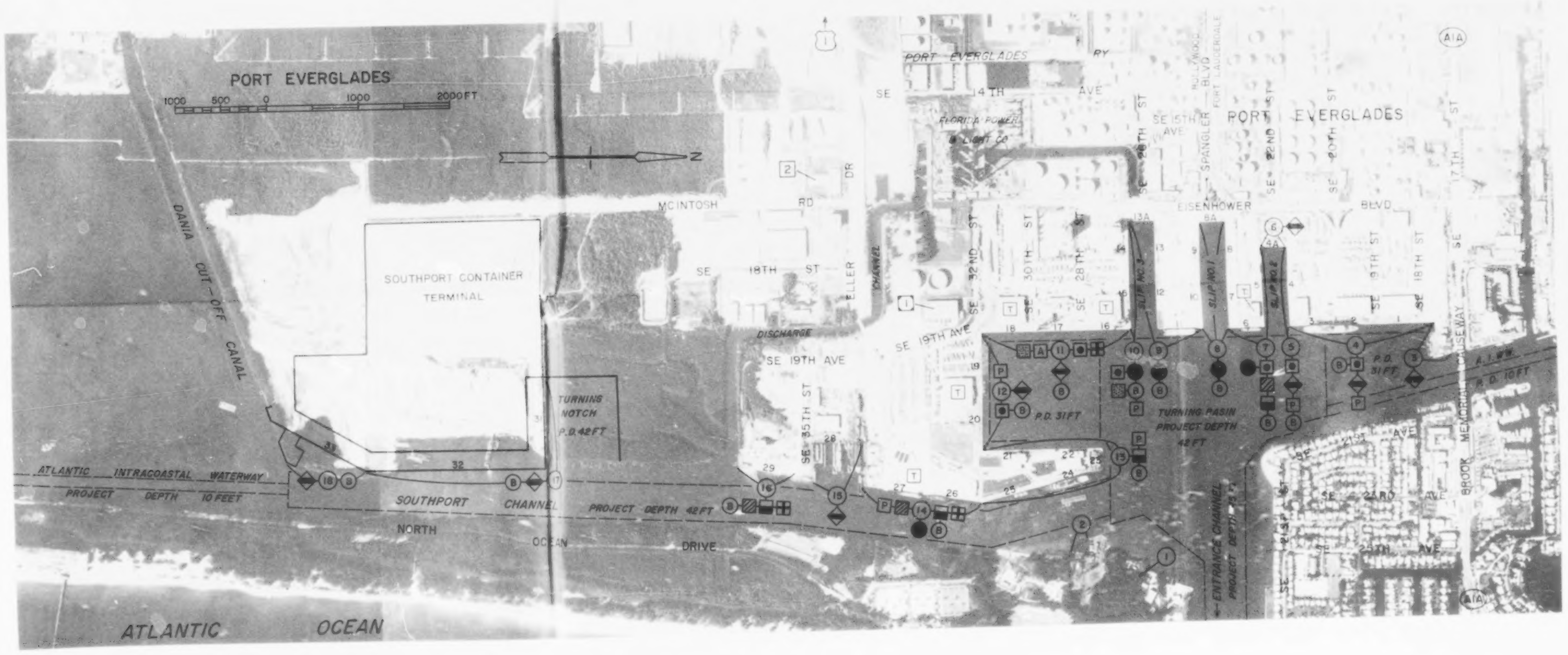
16/991


BANANA CREEK
TITUSVILLE BEACH
FALSE CAPE
28
N
INDIAN RIVER
OCEAN
ATLANTIC
ADDISON PT
TITUSVILLE COCOA AIRPORT
NASA CAUSEWAY
KENNEDY PARKWAY
29
30
ATLANTIC INTRACOASTAL WATERWAY PROJECT DEPTH 12 FT
DELESPINE
FRONTENAC
WILLIAMS PT
SHARPES
US HY NO 1
WHITE PT
BUCK CREEK
PETERSON PT
27
QUARTERMAN COVE
CACTUS PT
MIDDLE PT
HOME PT
DUCK PT
PENINSULA
CAPE CANAVERAL
ISLAND
MERRITT
COURTENAY
AUDUBON
12 FT FOR WIDTH OF 125 FT
BANANA RIVER
CANAVERAL
CANAVERAL BIGHT
PORT CANAVERAL
CREEK
BARGE CANAL
SYKES
7 FT
LONG PT
CAPE CANAVERAL
CITY POINT
0
1
2
3 MI


GREENWOOD AVE
FLORIDA EAST COAST RY
PALM BEACH DISTRICT RR
8TH ST
LAKEVIEW AVE
13TH ST
16TH ST
20TH ST
RIVIERA BEACH
BLUE HERON BLVD
5
1
2
1
C
AVE
E
BROADWAY
AVE
C
AVE
B
AVE A
RIVIERA BEACH
WEST PALM BEACH ST
SOUTH RD
MIDDLE RD
PORT RD
PORT OF PALM BEACH
25 FT
ATLANTIC INTRACOASTAL WATERWAY
PROJECT DEPTH 10 FEET
TURNING BASIN
PROJECT DEPTH 33 FT
PEANUT ISLAND
RIVIERA BRIDGE
PHIL FOSTER PARK
LAKE WORTH
LAKE WORTH INNER CHANNEL
WAY
INDIAN RD
PALM BEACH
ANGLER AVE
BLVD
OCEAN
NORTH
LAKE DRIVE
INLET WAY
ATLANTIC AVE
PALM BEACH SHORES
OCEAN AVE
SOUTH JETTY
ENTRANCE CHANNEL PROJECT DEPTH 35 FT
NORTH JETTY
N
ATLANTIC OCEAN
PORT OF PALM BEACH
1000
500
0
1000
2000 FT

D 103.8:


SPOIL AREA
PORT CANAVERAL
EAST BASIN
PROJECT DEPTH 35 FT
MIDDLE BASIN
PROJECT DEPTH 35 FT
PROJECT DEPTH 35 FT
CANAVERAL BARGE CANAL
PROJECT DEPTH 12 FT
DOLPHIN RD
SCALLOP DR
MULLET RD
GLEN CREEK DR
GEORGE KING BLVD
401
A1A
PORT CANAVERAL
1000 500 0 1000 2000 FT


PORT EVERGLADES
1000 500 0 1000 2000 FT
N
DANIA CUT-OFF CANAL
SOUTHPORT CONTAINER TERMINAL
TURNING NOTCH P.D. 42 FT
MCINTOSH RD
EISENHOWER BLVD
SE 19TH AVE
PORT EVERGLADES
P.D. 31 FT
TURNING BASIN PROJECT DEPTH 42 FT
ENTRANCE CHANNEL
ATLANTIC INTRACOASTAL WATERWAY
PROJECT DEPTH 10 FEET
SOUTHPORT CHANNEL
PROJECT DEPTH 42 FT
NORTH OCEAN DRIVE
ATLANTIC OCEAN
A1A

LEGEND

▣ CONVENTIONAL GENERAL CARGO
⬌ CONTAINERIZED/ROLL ON - ROLL OFF GENERAL CARGO
H HEAVY LIFT
▨ STEEL, SCRAP METAL
A AUTOMOBILES, VEHICLES
P PASSENGERS
⊞ PAPER PRODUCTS
▬ LUMBER
☐ CEMENT
● PETROLEUM, CRUDE OIL, ASPHALT
Ⓑ BUNKERING/FUELING SERVICE
⊖ FISH, SEAFOOD
△ SUGAR
I DRY STORAGE WAREHOUSE
[I] COLD STORAGE WAREHOUSE
C CONTAINER FREIGHT STATION
T TRANSIT SHED
⊗ MARINE REPAIR
⧗ MOLASSES
★ DRYDOCKING/HAUL OUT FACILITY

WILMINGTON
SOUTH CAROLINA
GEORGETOWN
CHARLESTON
GEORGIA
SAVANNAH
BRUNSWICK
JACKSONVILLE
NORTH ATLANTIC OCEAN
FLORIDA
PORT CANAVERAL
GULF OF MEXICO
TAMPA
PALM BEACH
PORT EVERGLADES
MIAMI
LOCATION MAP

PORT FACILITIES AT

PORT OF PALM BEACH, PORT EVERGLADES AND PORT CANAVERAL, FLORIDA

WATER RESOURCES SUPPORT CENTER
U.S. ARMY CORPS OF ENGINEERS
CASEY BUILDING FORT BELVOIR, VA

JOHN W. VETTER
CHIEF, PORT FACILITIES

FIELD DATA: MARCH 1989
FIELD DATA BY: JOHN W. VETTER
AERIAL PHOTOGRAPHY: DATE 1985
DRAFTING BY: CARTOGRAPHIC SERVICES

MAP NO. 3